

**LEGEND**

- = Existing Tree To Remain
- = Proposed Conflicting Land Use Buffer Tree
- = Proposed Private Street & Shared Drive Tree
- = Proposed Public R.O.W. Tree
- = Proposed Woodland Replacement Deciduous Tree
- = Proposed Woodland Replacement Evergreen Tree



■ sheet title:

**Overall Landscape Plan**

■ project title:

**Village of Ann Arbor**

City of Ann Arbor, Michigan

■ prepared for:

Robertson Brothers Co.  
6905 Telegraph Rd. - Suite 200  
Bloomfield Hills, MI 48301

Phone: 248.657.4968

DTN Management Company  
2502 Lake Lansing Rd.  
Lansing, MI 48912

Phone: 517.371.5300

■ job number:

18004

■ date:

06.01.2021

■ drawn by:

EMJ

■ checked by:

WTK

■ revisions:

10.11.2021	Per Municipal Review
01.20.2022	Per Municipal Review
03.31.2022	Per Municipal Review
06.15.2022	Per Municipal Review
08.22.2022	Per PC Comments



**Landscape Requirements Summary**

**Interior Landscape Islands**

Required: Vehicular Use Areas above 3,300 SF shall receive 1 SF of Landscape Area per 20 SF of Vehicular Use Area and 1 Shade Tree per 250 SF of required Landscape Area  
 Vehicular Use Area: 26,252 SF Total (see Sheets 33-37)  
 Required: No Vehicular Use Area exceeds 3,300 SF

**Conflicting Land Use Buffers**

Required: Min. 15' Buffer between Vehicular Use Area or Refuse/Recycling Container and Public Park or Land Zoned for Residential  
 1 Tree per 15 LF of required Buffer

Length of Buffers: 18.5 LF (See Sheet 34 for Buffer location)  
 Required: 1 Tree  
 Proposed: 1 Tree

**Street Trees**

Required: 1 Deciduous Tree per 30 LF of street frontage  
 Street Frontage Total: 13,690 LF  
 Required: 457 Trees  
 Proposed: 457 Trees

**Refuse / Recycling Container Screening**

Required: Container shall be screened by min. 6' ht. wall or fence  
 Proposed: 6' ht. Screen Wall

**Public R.O.W. Street Trees**

Required: 1 Tree per 45 LF of public R.O.W.  
 Pontiac Trail R.O.W.: 308 LF  
 Pontiac Trail Required: 7 Trees  
 Pontiac Trail Proposed: 7 Trees  
 Dhu Varren R.O.W.: 330 LF  
 Dhu Varren Required: 8 Trees  
 Dhu Varren Proposed: 8 Trees (6 Proposed & 2 Existing)

**Woodland Replacement Summary**

**Landmark Trees**

Total Trees Surveyed: 182  
 Total Trees Removed: 114  
 Total DBH Removed: 2,477.00"  
 Replacement Required: 1,238.50"

**Woodland Trees**

Total Trees Surveyed: 1,289  
 Total Trees Removed: 981  
 Total DBH Removed: 6,749.00"  
 Replacement Required: 3,375.00"

**Total Replacement Required**

Total DBH Required: 4,613.50"  
 Total Replacement Provided: 3,993.00"

\*Note: It is intended that the remaining 620.50" of required replacement shall be paid into the Ann Arbor Tree Fund at the rate of \$200.00 per replacement inch not planted on site. This total amounts to \$124,100.00.

**Vehicular Use Areas (VUA) Legend**

- = Areas Identified as Streets
- = Areas Identified as Vehicular Use Areas

**Notes:**

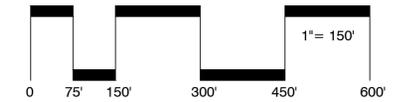
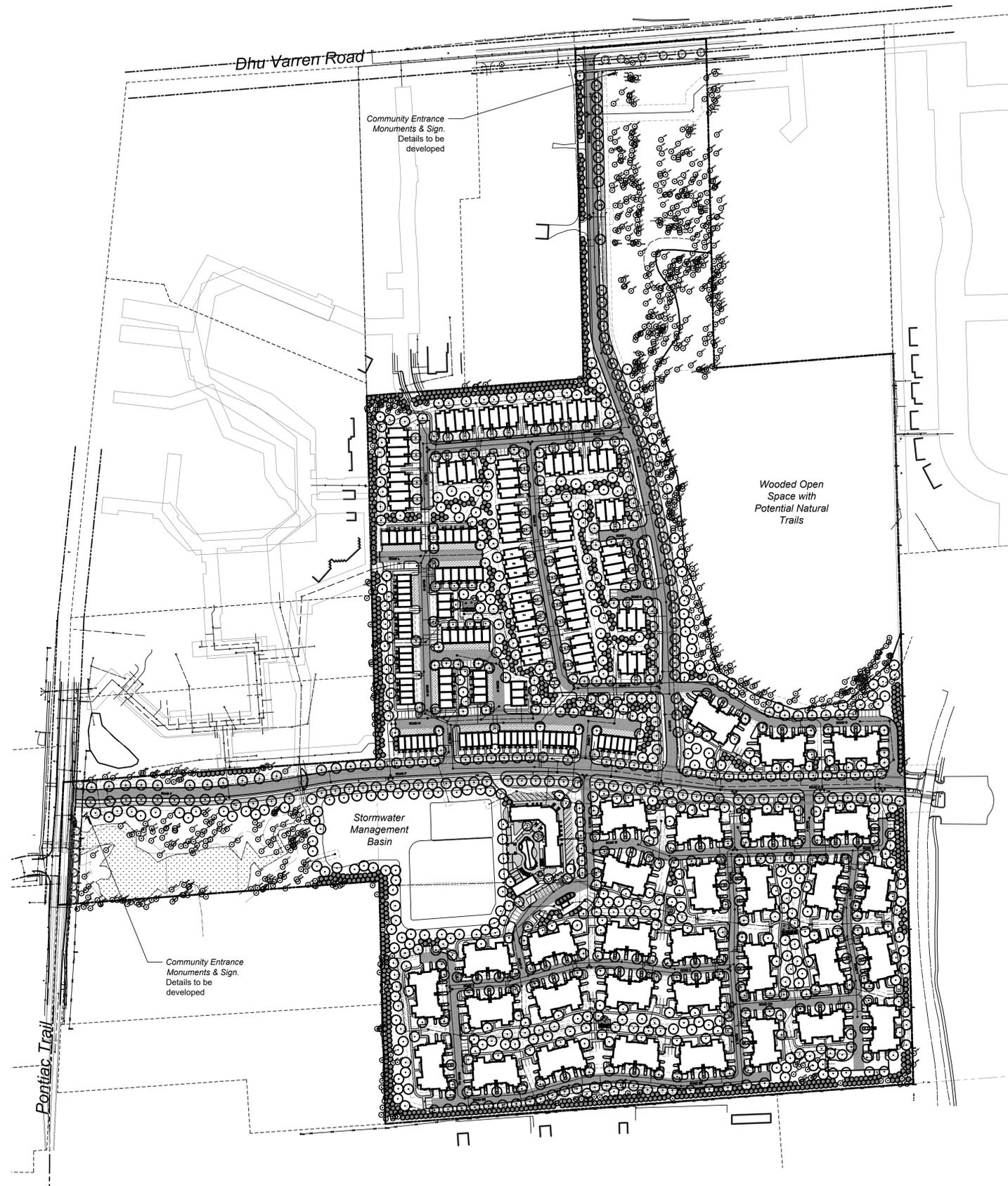
- Areas identified as VUAs meet the definition of Vehicular Use Area as written in the Ann Arbor Code of Ordinances Article VIII, Definitions (see below).
- Areas identified as Streets shall not be considered a part of a VUA per the below definition.
- Areas not designated either as VUA or Street are considered paved areas to facilitate the movement of vehicles between VUAs and Streets, and are not counted as VUAs per the definition.

**Vehicular Use Area Definition per Ann Arbor Unified Development Code**

**Vehicular Use Area**  
 Any area of 1,200 square feet or more of a property that is not located within an enclosed Structure and that is devoted to a use by or for motor vehicles, including parking (accessory or non-accessory) or storage of Automobiles, trucks or other vehicles, loading areas, service areas and drives. The area within a carport is considered part of the Vehicular Use Area. Any paved area designed to be used solely for access between the street and the Vehicular Use Area shall not be considered part of the Vehicular Use Area.

**General Landscape Notes**

- Utility box locations are unknown at this time. Once the box locations are known they will be screened on 3 sides. See detail on Sheet 33.
- Disturbed areas shall be sodded or seeded.
- Landscape areas shall be irrigated.
- Snow shall be stored along streets. Storage shall not include detention areas or landscaped areas.
- Trees shall be planted a min. 5'-8' from utility leads. Trees shall be planted such that a 1:1 trench could be dug to access utility leads.
- Trees shall be planted a min. 10' from Water Main & Sanitary Sewer
- All deciduous trees shall be planted a min. 15' o.c. Evergreen trees shall be planted a min. 12' o.c.
- Trees shall be planted a min. 15' from fire hydrants
- Snow Storage Areas shall be a min. 15' from fire hydrants



**LEGEND**

- = Existing Tree To Remain
- = Proposed Conflicting Land Use Buffer Tree
- = Proposed Private Street & Shared Drive Tree
- = Proposed Public R.O.W. Tree
- = Proposed Woodland Replacement Deciduous Tree
- = Proposed Woodland Replacement Evergreen Tree



sheet title:

**Landscape Plan - Area 1**

project title:

**Village of Ann Arbor**

City of Ann Arbor, Michigan

prepared for:

Robertson Brothers Co.  
6905 Telegraph Rd. - Suite 200  
Bloomfield Hills, MI 48301

Phone: 248.657.4968

DTN Management Company  
2502 Lake Lansing Rd.  
Lansing, MI 48912

Phone: 517.371.5300

job number:      date:

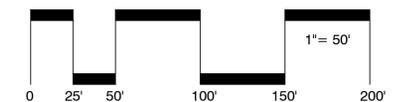
18004                      06.01.2021

drawn by:              checked by:

EMJ                      WTK

revisions:

10.11.2021	Per Municipal Review
01.20.2022	Per Municipal Review
03.31.2022	Per Municipal Review
06.15.2022	Per Municipal Review
08.22.2022	Per PC Comments



**Plant Schedule This Sheet**

Public R.O.W. Trees						
sym.	qty.	botanical name	common name	size	spacing	root
AR	6	<i>Acer rubrum</i> 'Armstrong'	Armstrong Red Maple	2.5" cal.	per plans	B&B
Private Street & Shared Drive Trees						
sym.	qty.	botanical name	common name	size	spacing	root
GT	1	<i>Gleditsia triacanthos</i>	Honeylocust	2.5" cal.	per plans	B&B
LT	8	<i>Liriodendron tulipifera</i>	Tulip Tree	2.5" cal.	per plans	B&B
QR	7	<i>Quercus rubra</i>	Red Oak	2.5" cal.	per plans	B&B
UA	6	<i>Ulmus americana</i> 'Princeton'	Princeton American Elm	2.5" cal.	per plans	B&B
Woodland Replacement Trees						
sym.	qty.	botanical name	common name	size	spacing	root
AB	21	<i>Abies balsamea</i>	Balsam Fir	8' ht.	per plans	B&B
PM	19	<i>Picea mariana</i>	Black Spruce	8' ht.	per plans	B&B
PS	20	<i>Pinus strobus</i>	White Pine	8' ht.	per plans	B&B
QB	1	<i>Quercus bicolor</i>	Swamp White Oak	3" cal.	per plans	B&B

**General Landscape Notes**

- Utility box locations are unknown at this time. Once the box locations are known they will be screened on 3 sides. See detail on Sheet 33.
- Disturbed areas shall be sodded or seeded.
- Landscape areas shall be irrigated.
- Snow shall be stored along streets. Storage shall not include detention areas or landscaped areas.
- Trees shall be planted a min. 5'-8' from utility leads. Trees shall be planted such that a 1:1 trench could be dug to access utility leads.
- Trees shall be planted a min. 10' from Water Main & Sanitary Sewer
- All deciduous trees shall be planted a min. 15' o.c. Evergreen trees shall be planted a min. 12' o.c.
- Trees shall be planted a min. 15' from fire hydrants
- Snow Storage Areas shall be a min. 15' from fire hydrants



750 Forest Ave. - Suite 101  
Birmingham, MI 48009  
T: 248.594.3220

## LEGEND

- = Existing Tree To Remain
- = Proposed Conflicting Land Use Buffer Tree
- = Proposed Private Street & Shared Drive Tree
- = Proposed Public R.O.W. Tree
- = Proposed Woodland Replacement Deciduous Tree
- = Proposed Woodland Replacement Evergreen Tree



sheet title:

## Landscape Plan - Area 2

project title:

## Village of Ann Arbor

City of Ann Arbor, Michigan

prepared for:

Robertson Brothers Co.  
6905 Telegraph Rd. - Suite 200  
Bloomfield Hills, MI 48301

Phone: 248.657.4968

DTN Management Company  
2502 Lake Lansing Rd.  
Lansing, MI 48912

Phone: 517.371.5300

job number:

18004

date:

06.01.2021

drawn by:

EMJ

checked by:

WTK

revisions:

10.11.2021	Per Municipal Review
01.20.2022	Per Municipal Review
03.31.2022	Per Municipal Review
06.15.2022	Per Municipal Review
08.22.2022	Per PC Comments

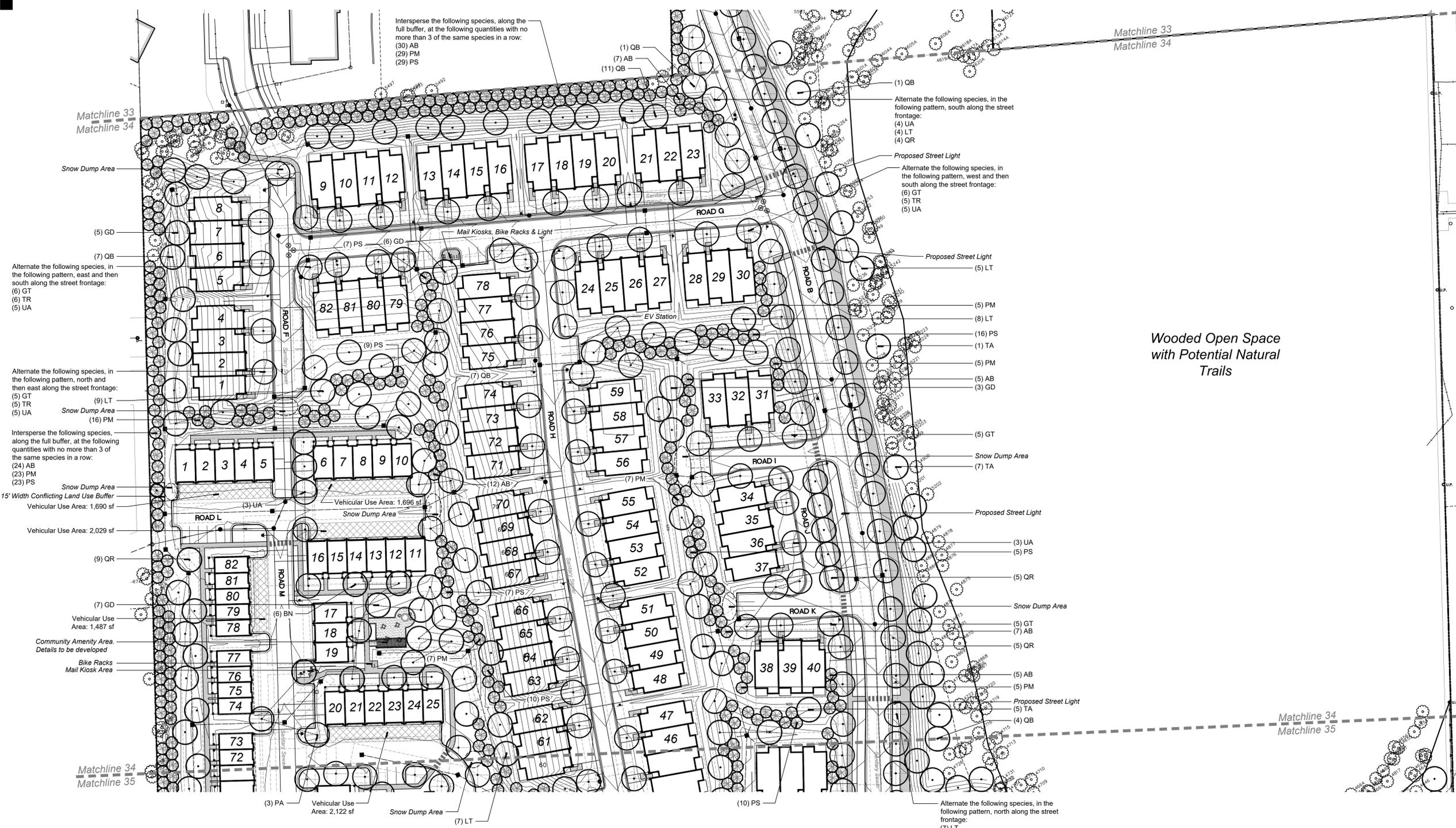


Know what's below.  
Call before you dig.



sheet no.

34



### Plant Schedule This Sheet

Conflicting Land Use Buffer Trees						
sym.	qty.	botanical name	common name	size	spacing	root
AB	1	<i>Abies balsamea</i>	Balsam Fir	8' ht.	per plans	B&B

Private Street & Shared Drive Trees						
sym.	qty.	botanical name	common name	size	spacing	root
GT	27	<i>Gleditsia triacanthos var. Inermis</i>	Thornless Honeylocust	2.5" cal.	per plans	B&B
LT	12	<i>Liriodendron tulipifera</i>	Tulip Tree	2.5" cal.	per plans	B&B
PA	3	<i>Platanus x acerifolia 'Exclamation'</i>	Exclamation London Planetree	2.5" cal.	per plans	B&B
QB	2	<i>Quercus bicolor</i>	Swamp White Oak	3" cal.	per plans	B&B
QR	10	<i>Quercus rubra</i>	Red Oak	2.5" cal.	per plans	B&B
TR	16	<i>Tilia americana 'Redmond'</i>	Redmond Linden	2.5" cal.	per plans	B&B
UA	32	<i>Ulmus americana 'Princeton'</i>	Princeton American Elm	2.5" cal.	per plans	B&B

Woodland Replacement Trees						
sym.	qty.	botanical name	common name	size	spacing	root
AB	89	<i>Abies balsamea</i>	Balsam Fir	8' ht.	per plans	B&B
BN	6	<i>Betula nigra</i>	River Birch	3" cal.	per plans	B&B
GD	21	<i>Gymnocladus dioica</i>	Kentucky Coffeetree	3" cal.	per plans	B&B
LT	28	<i>Liriodendron tulipifera</i>	Tulip Tree	3" cal.	per plans	B&B
PM	97	<i>Picea mariana</i>	Black Spruce	8' ht.	per plans	B&B
PS	116	<i>Pinus strobus</i>	White Pine	8' ht.	per plans	B&B
QB	29	<i>Quercus bicolor</i>	Swamp White Oak	3" cal.	per plans	B&B
QR	19	<i>Quercus rubra</i>	Red Oak	3" cal.	per plans	B&B
TA	13	<i>Tilia americana</i>	Basswood	3" cal.	per plans	B&B

### General Landscape Notes

- Utility box locations are unknown at this time. Once the box locations are known they will be screened on 3 sides. See detail on Sheet 33.
- Disturbed areas shall be sodded or seeded.
- Landscape areas shall be irrigated.
- Snow shall be stored along streets. Storage shall not include detention areas or landscaped areas.
- Trees shall be planted a min. 5'-8' from utility leads. Trees shall be planted such that a 1:1 trench could be dug to access utility leads.
- Trees shall be planted a min. 10' from Water Main & Sanitary Sewer
- All deciduous trees shall be planted a min. 15' o.c. Evergreen trees shall be planted a min. 12' o.c.
- Trees shall be planted a min. 15' from fire hydrants
- Snow Storage Areas shall be a min. 15' from fire hydrants

**LEGEND**

- = Existing Tree To Remain
- = Proposed Conflicting Land Use Buffer Tree
- = Proposed Private Street & Shared Drive Tree
- = Proposed Public R.O.W. Tree
- = Proposed Woodland Replacement Deciduous Tree
- = Proposed Woodland Replacement Evergreen Tree



sheet title:

**Landscape Plan - Area 3**

project title:

**Village of Ann Arbor**

City of Ann Arbor, Michigan

prepared for:

Robertson Brothers Co.  
6905 Telegraph Rd. - Suite 200  
Bloomfield Hills, MI 48301

Phone: 248.657.4968

DTN Management Company  
2502 Lake Lansing Rd.  
Lansing, MI 48912

Phone: 517.371.5300

job number:

18004

date:

06.01.2021

drawn by:

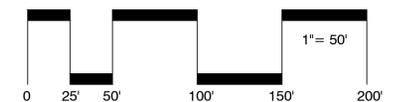
EMJ

checked by:

WTK

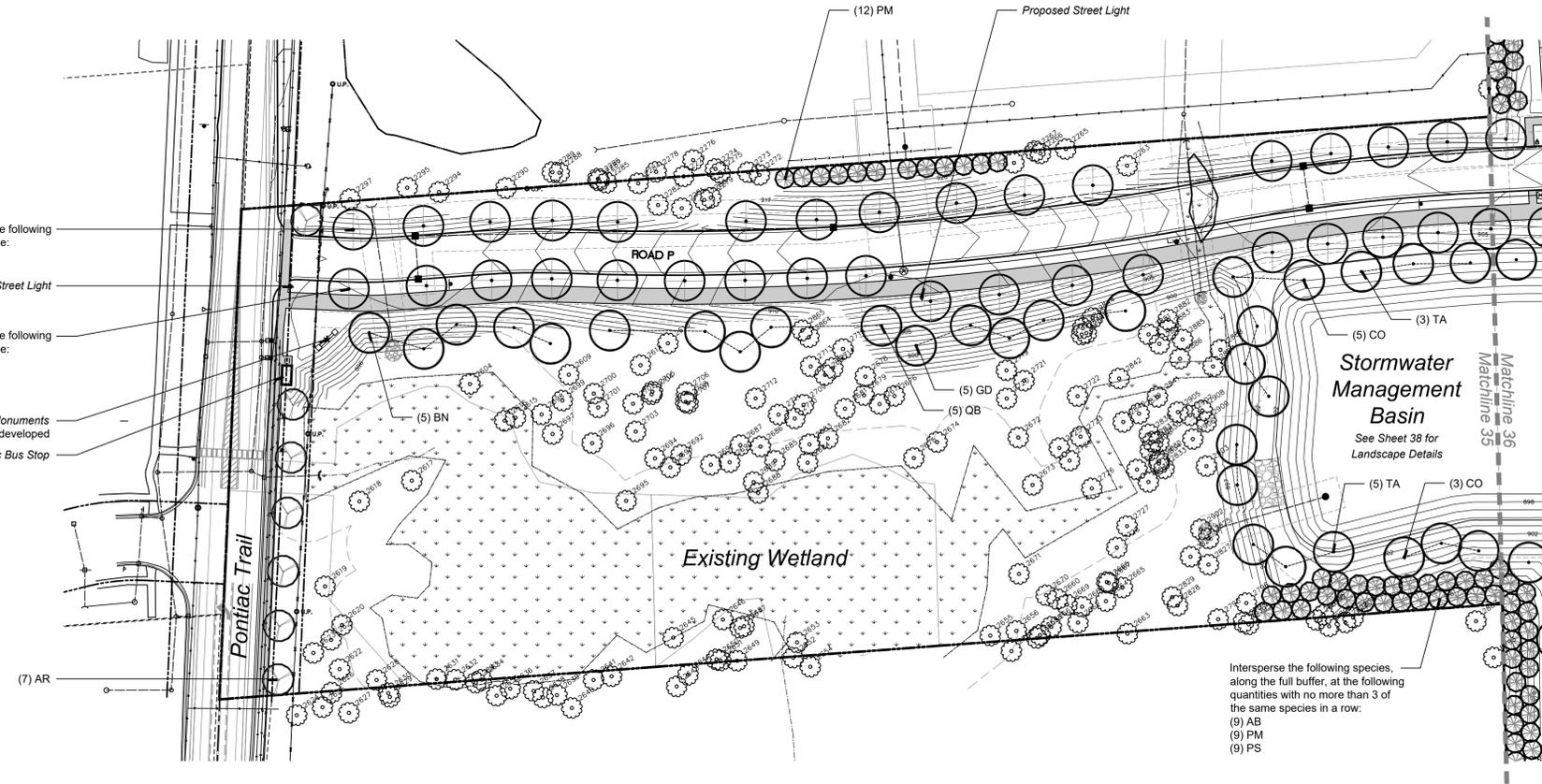
revisions:

- 10.11.2021 Per Municipal Review
- 01.20.2022 Per Municipal Review
- 03.31.2022 Per Municipal Review
- 06.15.2022 Per Municipal Review
- 08.22.2022 Per PC Comments



sheet no.

**35**



Alternate the following species, in the following pattern, east along the street frontage:  
(5) LT  
(5) QR  
(5) UA

Alternate the following species, in the following pattern, east along the street frontage:  
(6) QR  
(6) UA  
(6) LT

Community Entrance Monuments & Sign. Details to be developed  
Proposed Public Bus Stop

Intersperse the following species, along the full buffer, at the following quantities with no more than 3 of the same species in a row:  
(9) AB  
(9) PM  
(9) PS

**Plant Schedule This Sheet**

Private Street & Shared Drive Trees						
sym.	qty.	botanical name	common name	size	spacing	root
LT	11	<i>Liriodendron tulipifera</i>	Tulip Tree	2.5" cal.	per plans	B&B
QR	11	<i>Quercus rubra</i>	Red Oak	2.5" cal.	per plans	B&B
UA	11	<i>Ulmus americana</i> 'Princeton'	Princeton American Elm	2.5" cal.	per plans	B&B
Public R.O.W. Trees						
sym.	qty.	botanical name	common name	size	spacing	root
AR	7	<i>Acer rubrum</i> 'Armstrong'	Armstrong Red Maple	2.5" cal.	per plans	B&B
Woodland Replacement Trees						
sym.	qty.	botanical name	common name	size	spacing	root
AB	9	<i>Abies balsamea</i>	Balsam Fir	8' ht.	per plans	B&B
BN	5	<i>Betula nigra</i>	River Birch	3" cal.	per plans	B&B
CO	8	<i>Celtis occidentalis</i>	Hackberry	3" cal.	per plans	B&B
GD	5	<i>Gymnocladus dioica</i>	Kentucky Coffeetree	3" cal.	per plans	B&B
PM	21	<i>Picea mariana</i>	Black Spruce	8' ht.	per plans	B&B
PS	9	<i>Pinus strobus</i>	White Pine	8' ht.	per plans	B&B
QB	5	<i>Quercus bicolor</i>	Swamp White Oak	3" cal.	per plans	B&B
TA	8	<i>Tilia americana</i>	Basswood	3" cal.	per plans	B&B

**General Landscape Notes**

- Utility box locations are unknown at this time. Once the box locations are known they will be screened on 3 sides. See detail on Sheet 33.
- Disturbed areas shall be sodded or seeded.
- Landscape areas shall be irrigated.
- Snow shall be stored along streets. Storage shall not include detention areas or landscaped areas.
- Trees shall be planted a min. 5'-8' from utility leads. Trees shall be planted such that a 1:1 trench could be dug to access utility leads.
- Trees shall be planted a min. 10' from Water Main & Sanitary Sewer
- All deciduous trees shall be planted a min. 15' o.c. Evergreen trees shall be planted a min. 12' o.c.
- Trees shall be planted a min. 15' from fire hydrants
- Snow Storage Areas shall be a min. 15' from fire hydrants

750 Forest Ave. - Suite 101  
Birmingham, MI 48009  
T: 248.594.3220

**LEGEND**

- = Existing Tree To Remain
- = Proposed Conflicting Land Use Buffer Tree
- = Proposed Private Street & Shared Drive Tree
- = Proposed Public R.O.W. Tree
- = Proposed Woodland Replacement Deciduous Tree
- = Proposed Woodland Replacement Evergreen Tree



■ sheet title:  
**Landscape Plan - Area 4**

■ project title:  
**Village of Ann Arbor**

City of Ann Arbor, Michigan

■ prepared for:  
Robertson Brothers Co.  
6905 Telegraph Rd. - Suite 200  
Bloomfield Hills, MI 48301

Phone: 248.657.4968

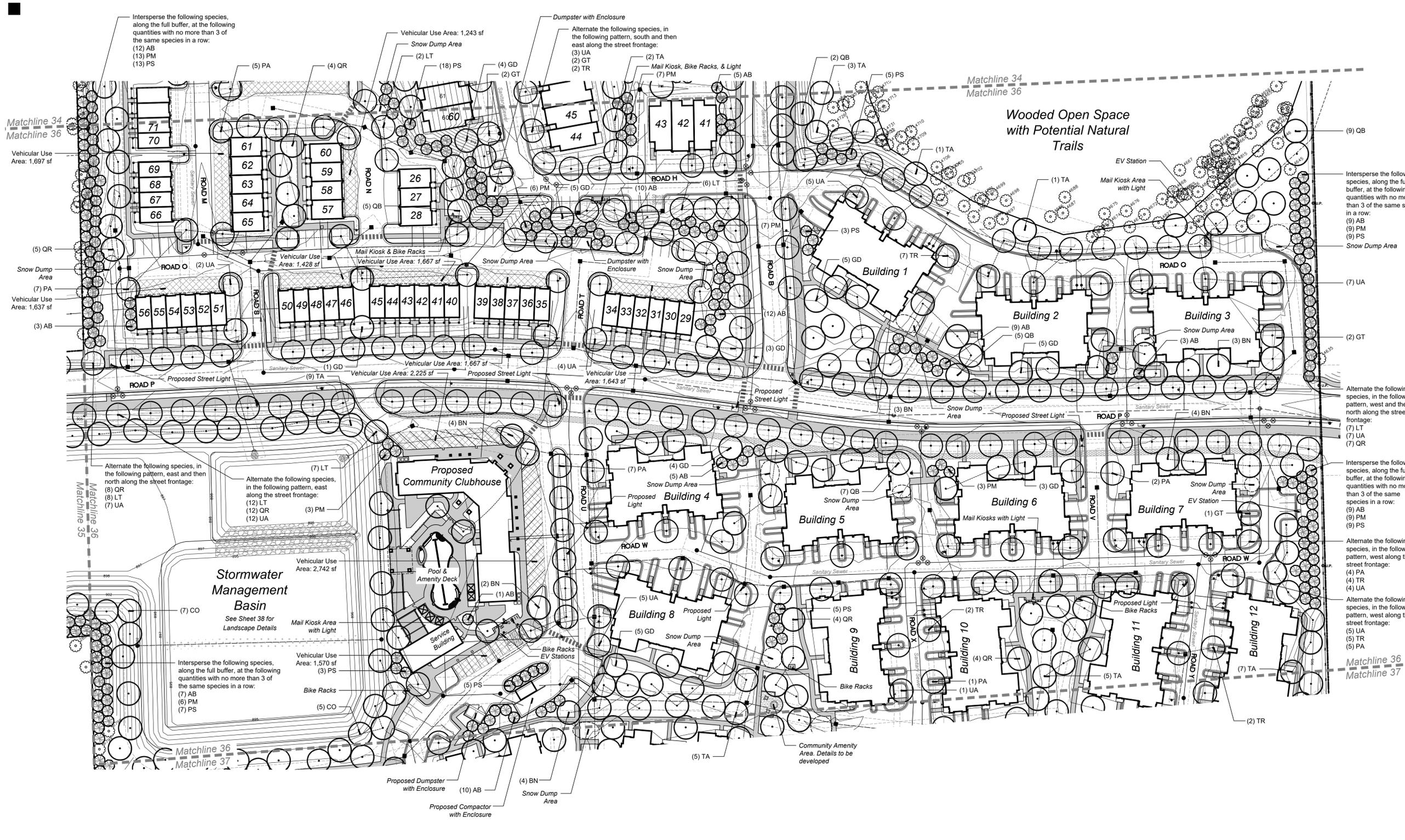
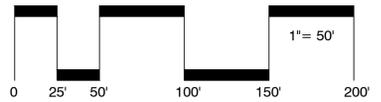
DTN Management Company  
2502 Lake Lansing Rd.  
Lansing, MI 48912

Phone: 517.371.5300

■ job number: 18004  
■ date: 06.01.2021

■ drawn by: EMJ  
■ checked by: WTK

■ revisions:  
10.11.2021 Per Municipal Review  
01.20.2022 Per Municipal Review  
03.31.2022 Per Municipal Review  
06.15.2022 Per Municipal Review  
08.22.2022 Per PC Comments



**Plant Schedule This Sheet**

Private Street & Shared Drive Trees						
sym.	qty.	botanical name	common name	size	spacing	root
GD	2	<i>Gymnocladus dioicus</i>	Kentucky Coffeetree	3" cal.	per plans	B&B
GT	7	<i>Gleditsia triacanthos var. Inermis</i>	Thornless Honeylocust	2.5" cal.	per plans	B&B
LT	35	<i>Liriodendron tulipifera</i>	Tulip Tree	2.5" cal.	per plans	B&B
PA	31	<i>Platanus x acerifolia 'Exclamation'</i>	Exclamation London Planetree	2.5" cal.	per plans	B&B
QB	3	<i>Quercus bicolor</i>	Swamp White Oak	3" cal.	per plans	B&B
QR	27	<i>Quercus rubra</i>	Red Oak	2.5" cal.	per plans	B&B
TR	22	<i>Tilia americana 'Redmond'</i>	Redmond Linden	2.5" cal.	per plans	B&B
UA	62	<i>Ulmus americana 'Princeton'</i>	Princeton American Elm	2.5" cal.	per plans	B&B

Woodland Replacement Trees						
sym.	qty.	botanical name	common name	size	spacing	root
AB	95	<i>Abies balsamea</i>	Balsam Fir	8' ht.	per plans	B&B
BN	20	<i>Betula nigra</i>	River Birch	3" cal.	per plans	B&B
CO	12	<i>Celtis occidentalis</i>	Hackberry	3" cal.	per plans	B&B
GD	33	<i>Gymnocladus dioicus</i>	Kentucky Coffeetree	3" cal.	per plans	B&B
LT	7	<i>Liriodendron tulipifera</i>	Tulip Tree	3" cal.	per plans	B&B
PM	63	<i>Picea mariana</i>	Black Spruce	8' ht.	per plans	B&B
PS	77	<i>Pinus strobus</i>	White Pine	8' ht.	per plans	B&B
QB	25	<i>Quercus bicolor</i>	Swamp White Oak	3" cal.	per plans	B&B
QR	17	<i>Quercus rubra</i>	Red Oak	3" cal.	per plans	B&B
TA	33	<i>Tilia americana</i>	Basswood	3" cal.	per plans	B&B

**General Landscape Notes**

- Utility box locations are unknown at this time. Once the box locations are known they will be screened on 3 sides. See detail on Sheet 33.
- Disturbed areas shall be sodded or seeded.
- Landscape areas shall be irrigated.
- Snow shall be stored along streets. Storage shall not include detention areas or landscaped areas.
- Trees shall be planted a min. 5'-8" from utility leads. Trees shall be planted such that a 1:1 trench could be dug to access utility leads.
- Trees shall be planted a min. 10' from Water Main & Sanitary Sewer
- All deciduous trees shall be planted a min. 15' o.c. Evergreen trees shall be planted a min. 12' o.c.
- Trees shall be planted a min. 15' from fire hydrants
- Snow Storage Areas shall be a min. 15' from fire hydrants

These drawings as instruments of service, remain the property of LAND Design Studio, PLLC. Any changes, publications or unauthorized use is prohibited unless expressly approved. © LAND Design Studio, PLLC

**LEGEND**

- = Existing Tree To Remain
- = Proposed Conflicting Land Use Buffer Tree
- = Proposed Private Street & Shared Drive Tree
- = Proposed Public R.O.W. Tree
- = Proposed Woodland Replacement Deciduous Tree
- = Proposed Woodland Replacement Evergreen Tree



sheet title:

**Landscape Plan - Area 5**

project title:

**Village of Ann Arbor**

City of Ann Arbor, Michigan

prepared for:

Robertson Brothers Co.  
6905 Telegraph Rd. - Suite 200  
Bloomfield Hills, MI 48301

Phone: 248.657.4968

DTN Management Company  
2502 Lake Lansing Rd.  
Lansing, MI 48912

Phone: 517.371.5300

job number:

18004

date:

06.01.2021

drawn by:

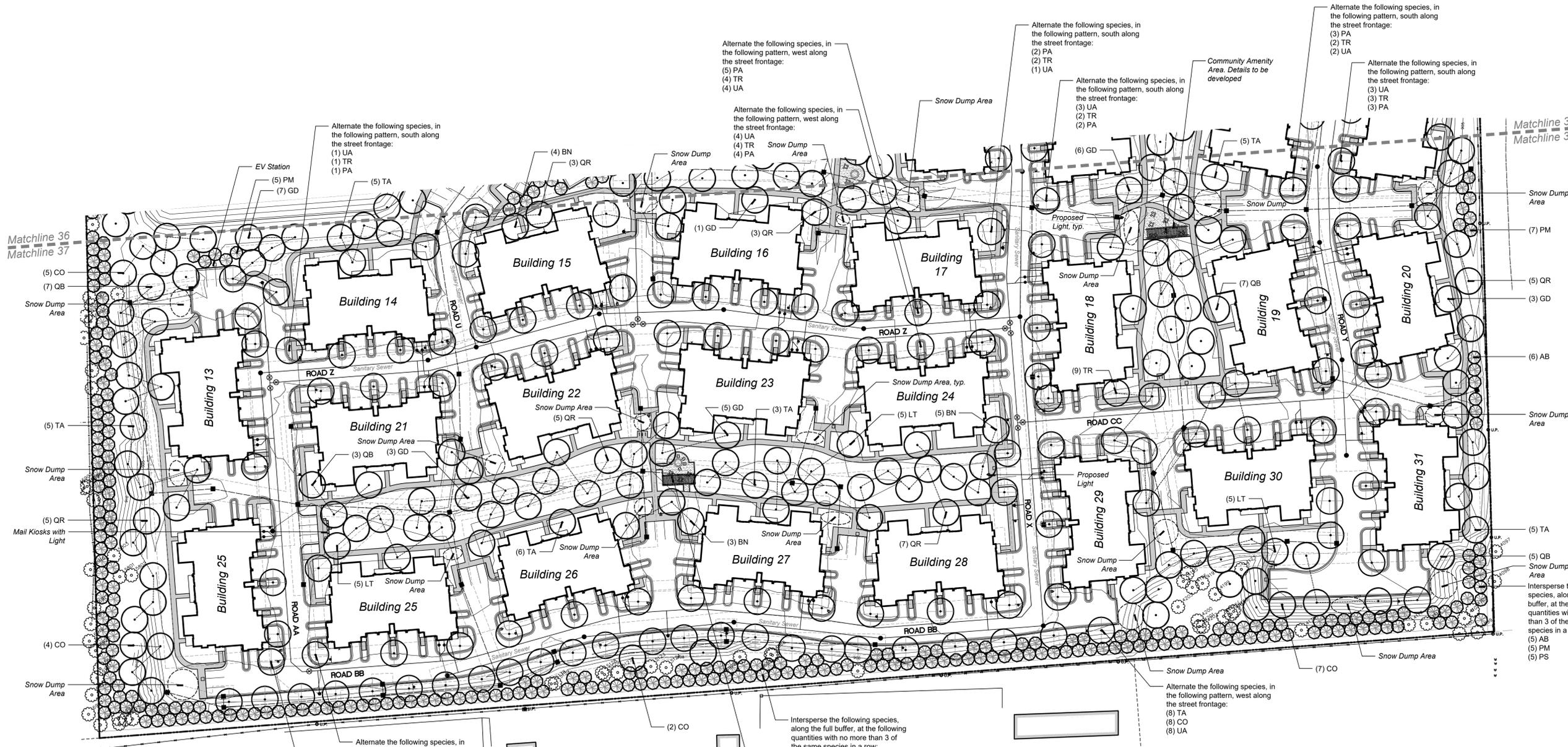
EMJ

checked by:

WTK

revisions:

10.11.2021	Per Municipal Review
01.20.2022	Per Municipal Review
03.31.2022	Per Municipal Review
06.15.2022	Per Municipal Review
08.22.2022	Per PC Comments



**Plant Schedule This Sheet**

Private Street & Shared Drive Trees						
sym.	qty.	botanical name	common name	size	spacing	root
CO	8	<i>Celtis occidentalis</i>	Hackberry	2.5" cal.	per plans	B&B
GD	2	<i>Gymnocladus dioica</i>	Kentucky Coffeetree	3" cal.	per plans	B&B
PA	26	<i>Platanus x acerifolia</i> 'Exclamation'	Exclamation London Planetree	2.5" cal.	per plans	B&B
QR	2	<i>Quercus rubra</i>	Red Oak	3" cal.	per plans	B&B
TA	8	<i>Tilia americana</i>	Basswood	2.5" cal.	per plans	B&B
TR	33	<i>Tilia americana</i> 'Redmond'	Redmond Linden	2.5" cal.	per plans	B&B
UA	32	<i>Ulmus americana</i> 'Princeton'	Princeton American Elm	2.5" cal.	per plans	B&B

Woodland Replacement Trees						
sym.	qty.	botanical name	common name	size	spacing	root
AB	85	<i>Abies balsamea</i>	Balsam Fir	8' ht.	per plans	B&B
BN	12	<i>Betula nigra</i>	River Birch	3" cal.	per plans	B&B
CO	18	<i>Celtis occidentalis</i>	Hackberry	3" cal.	per plans	B&B
GD	23	<i>Gymnocladus dioica</i>	Kentucky Coffeetree	3" cal.	per plans	B&B
LT	15	<i>Liriodendron tulipifera</i>	Tulip Tree	3" cal.	per plans	B&B
PM	91	<i>Picea mariana</i>	Black Spruce	8' ht.	per plans	B&B
PS	79	<i>Pinus strobus</i>	White Pine	8' ht.	per plans	B&B
QB	22	<i>Quercus bicolor</i>	Swamp White Oak	3" cal.	per plans	B&B
QR	26	<i>Quercus rubra</i>	Red Oak	3" cal.	per plans	B&B
TA	29	<i>Tilia americana</i>	Basswood	3" cal.	per plans	B&B

**General Landscape Notes**

- Utility box locations are unknown at this time. Once the box locations are known they will be screened on 3 sides. See detail on Sheet 33.
- Disturbed areas shall be sodded or seeded.
- Landscape areas shall be irrigated.
- Snow shall be stored along streets. Storage shall not include detention areas or landscaped areas.
- Trees shall be planted a min. 5'-8' from utility leads. Trees shall be planted such that a 1:1 trench could be dug to access utility leads.
- Trees shall be planted a min. 10' from Water Main & Sanitary Sewer
- All deciduous trees shall be planted a min. 15' o.c. Evergreen trees shall be planted a min. 12' o.c.
- Trees shall be planted a min. 15' from fire hydrants
- Snow Storage Areas shall be a min. 15' from fire hydrants



**LEGEND**

- = Existing Tree To Remain
- = Proposed Conflicting Land Use Buffer Tree
- = Proposed Private Street & Shared Drive Tree
- = Proposed Public R.O.W. Tree
- = Proposed Woodland Replacement Deciduous Tree
- = Proposed Woodland Replacement Evergreen Tree



■ sheet title:

**Stormwater Basin Landscape**

■ project title:

**Village of Ann Arbor**

City of Ann Arbor, Michigan

■ prepared for:

Robertson Brothers Co.  
6905 Telegraph Rd. - Suite 200  
Bloomfield Hills, MI 48301

Phone: 248.657.4968

DTN Management Company  
2502 Lake Lansing Rd.  
Lansing, MI 48912

Phone: 517.371.5300

■ job number:

18004

■ date:

06.01.2021

■ drawn by:

EMJ

■ checked by:

WTK

■ revisions:

10.11.2021	Per Municipal Review
01.20.2022	Per Municipal Review
03.31.2022	Per Municipal Review
06.15.2022	Per Municipal Review
08.22.2022	Per PC Comments



**Infiltration Basin Summary**

Slope Zone - 902' to Basin Floor Areas

45,748 s.f.  
Application Rate: 40.0 lbs. / Ac.  
42,00 lbs. of Storm Water Seed Mix  
3"-6" of Composted Organic Material  
shall be placed in this area.

Seed Mix available from Nativescape  
- www.nativescapellc.com  
- 517.456.9696  
- info@nativescapellc.com

Wet Meadow Plug Zone - Basin Floor Areas

70,919 s.f. Total  
Plug Plant Schedule

Live Plugs	qty.	botanical name	common name	spacing	Root
	2,533	<i>Acorus americanus</i>	Sweet Flag	24" o.c.	Live Plug
	2,533	<i>Asclepias incarnata</i>	Swamp Milkweed	24" o.c.	Live Plug
	2,533	<i>Campanula americana</i>	Tall Bellflower	24" o.c.	Live Plug
	2,533	<i>Eupatorium maculatum</i>	Joe Pye Weed	24" o.c.	Live Plug
	2,533	<i>Potamogeton pectinatus</i>	Sago Pondweed	24" o.c.	Live Plug
	2,533	<i>Sagittaria latifolia</i>	Common Arrowhead	24" o.c.	Live Plug
	2,533	<i>Silphium terebinthaceum</i>	Prairie Dock	24" o.c.	Live Plug

Note:  
Landscape Contractor shall mix species of plugs together as installation occurs to ensure no area is overwhelmingly one species of plug.

**Infiltration Basin Seed Mix**



Common Name	Scientific Name	#/acre	Quantity*
<b>Temporary Grasses 60%</b>		<b>20</b>	
Seed Cals	<i>Avena sativa</i>	14.0	14.70 lbs
Annual Rye	<i>Lolium multiflorum</i>	6.0	6.30 lbs
<b>Native Grasses 30%</b>		<b>12</b>	
Big Bluestem Grass	<i>Andropogon gerardii</i>	3.0	3.15 lbs
Fringed Sedge	<i>Carex crinita</i>	0.5	0.53 lbs
Fox Sedge	<i>Carex vulpinoidea</i>	0.5	0.53 lbs
Canada Wild Rye	<i>Elymus canadensis</i>	3.5	3.66 lbs
Dark Green Buzrah	<i>Scirpus atrovirens</i>	1.0	1.05 lbs
Indian Grass	<i>Sorghastrum nutans</i>	3.0	3.15 lbs
Prairie Cord Grass	<i>Sporina pectinata</i>	0.5	0.53 lbs
<b>Native Wildflowers 20%</b>		<b>8</b>	
Calico Aster	<i>Aster laterifolius</i>	0.2	0.21 lbs
New England Aster	<i>Aster novae-angliae</i>	0.3	0.32 lbs
Pink Indian Pleasant	<i>Casalia atriplicifolia</i>	0.2	0.21 lbs
Turtlehead	<i>Chelone glabra</i>	0.2	0.21 lbs
Jossey Weed	<i>Eupatorium maculatum</i>	0.3	0.32 lbs
Burnswee	<i>Equisetum perfoliatum</i>	0.2	0.21 lbs
Ox Eye Sunflower	<i>Helianthus scaberrimus</i>	0.6	0.63 lbs
Dense Blazingstar	<i>Liatris spicata</i>	0.3	0.32 lbs
Cardinal Flower	<i>Lobelia cardinalis</i>	0.2	0.21 lbs
Great Blue Lobelia	<i>Lobelia siphilitica</i>	0.2	0.21 lbs
Yellow Coneflower	<i>Rudbeckia hirta</i>	1.8	1.88 lbs
Black-eyed Susan	<i>Rudbeckia hirta</i>	2.0	2.10 lbs
Green-headed Coneflower	<i>Rudbeckia laciniata</i>	0.2	0.21 lbs
<b>Wildflowers 10%</b>		<b>4</b>	
Ohio Goldenrod	<i>Solidago ohioensis</i>	0.2	0.21 lbs
Ridge's Goldenrod	<i>Solidago rigida</i>	0.2	0.21 lbs
Blue Veronica	<i>Veronica hastata</i>	0.5	0.52 lbs
Culver's Root	<i>Veronicastrum virginicum</i>	0.2	0.21 lbs
Ironweed	<i>Veronica gigantea</i>	0.2	0.21 lbs
<b>Total Pounds Per Acre</b>		<b>40 lbs</b>	<b>42.00 lbs</b>

Note:  
Notify Seed Supplier that *Silphium perfoliatum* (Cupplant) cannot be used in the specified seed mix due to being a Threatened Species

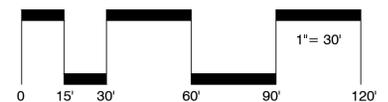
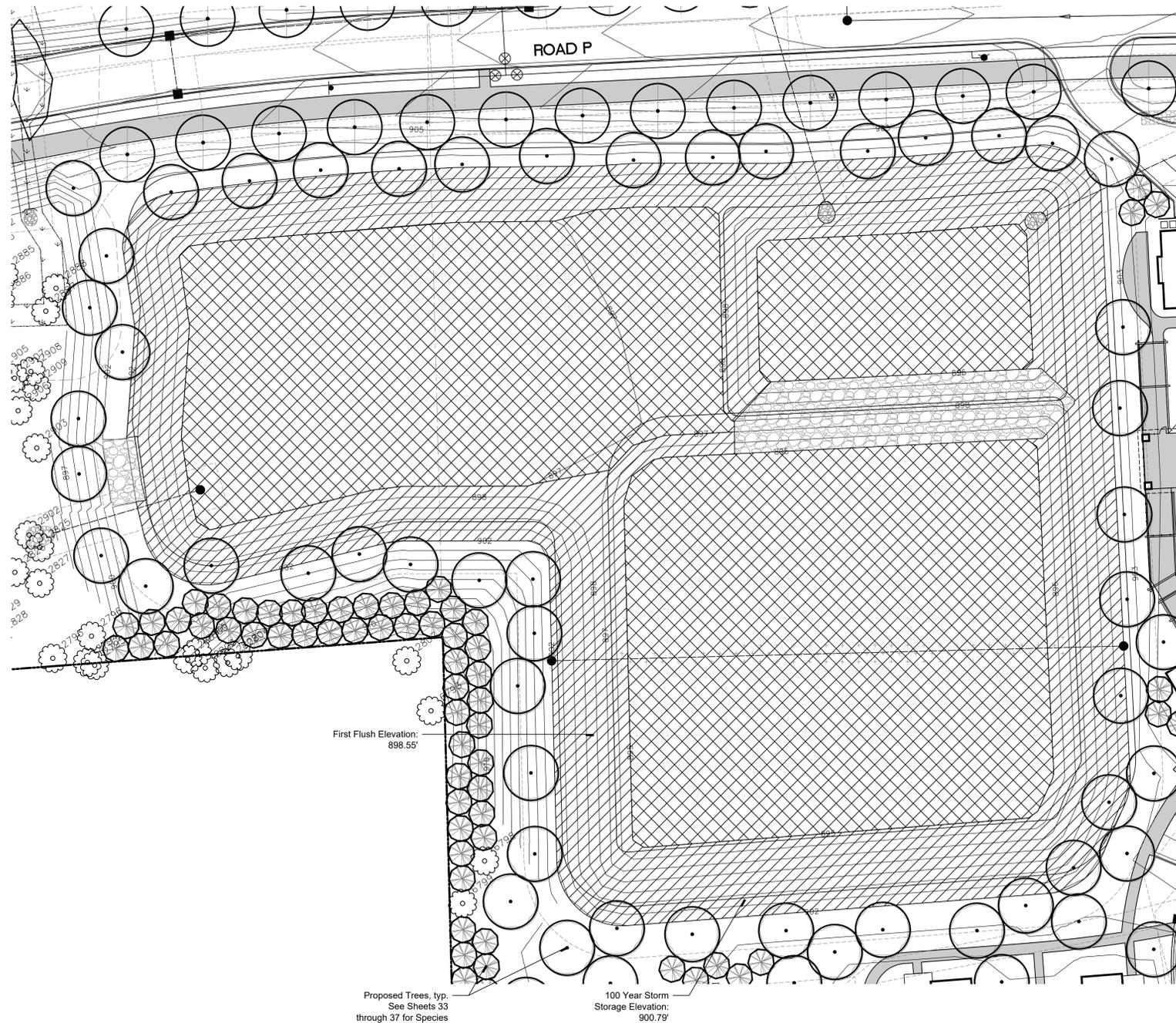
\*Quantities are determined by availability of seed at the time of ordering and are subject to change. Species shown in the table, with the exception of *Silphium perfoliatum*, will not change

**Infiltration Basin Notes**

No chemicals are allowed in Stormwater Features or Buffer Zones with the following exception: Invasive species may be treated with chemicals by a certified applicator. Mowing is allowed only twice a year.

Soils must be amended with a composted organic material. Soils must be free of construction debris and subsoils. Soils must contain 20%-30% compost.

At the time of plant and seed delivery, a WCWRC Landscape Reviewer must be present. The quantity and species delivered will be reviewed on site. Contact Catie Wytchack at wytychako@washtenaw.org or 734.222.6813 to coordinate.



sheet no.

**38**

750 Forest Ave. - Suite 101  
Birmingham, MI 48009  
T: 248.594.3220

## LEGEND

## City of Ann Arbor Notes

**Continuing Care**  
Landscaping shall be kept in neat, orderly, and healthy growing condition, free from debris and refuse. All landscape material shall be maintained by a regular program of mowing, watering, weeding, feeding, and pruning. Pruning shall be minimal at the time of installation, only to remove dead or diseased branches. Subsequent pruning shall assure proper maturation of plants to achieve their approved purpose.

**Replenishment**  
All dead or diseased plant material shall be removed and replaced within six (6) months after it dies, or in the next planting season, whichever occurs first.

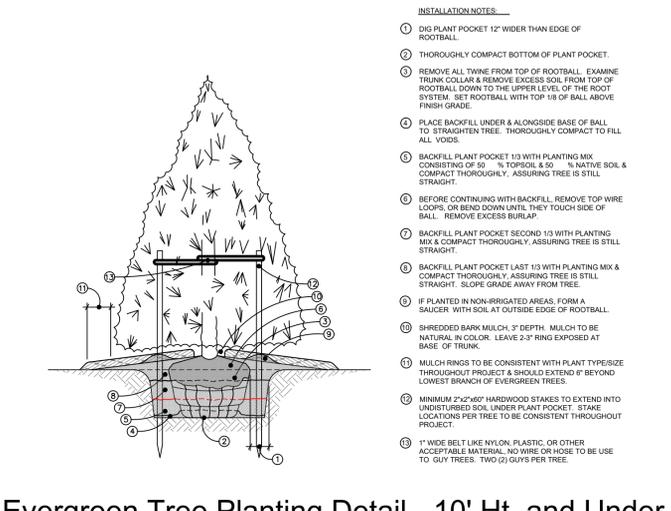
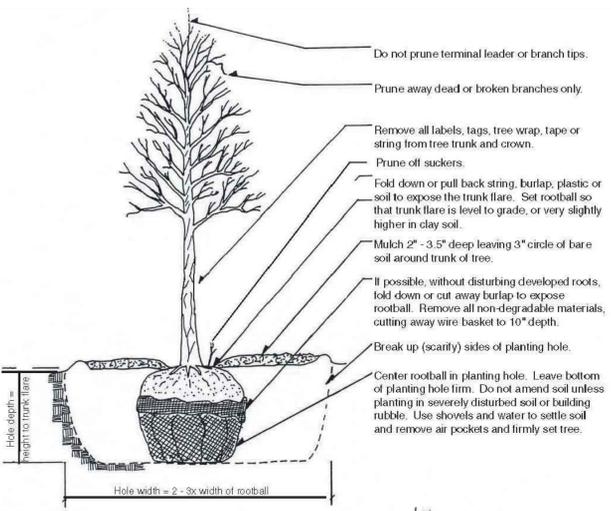
**Watering**  
This shall be accomplished by installation of an underground irrigation system to provide water for the landscape areas specified on the landscape plan.

**Clay Soils**  
Construct earth bed to required grade and trim. Prior to placement of topsoil or compost, harrow all earth beds to a minimum of 3" depth.

**Fertilizer**  
Beyond initial fertilization, all future fertilizer applications shall not contain phosphorus.

## Landscape Notes

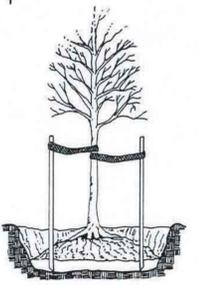
- Tree stakes, guy wires and tree wrap shall be removed after one year.
- All trees shall be planted no closer than 15' to fire hydrants.
- All plant material shall be true to name and free from physical damage and wind burn.
- Plants shall be full, well-branched, and in a healthy, vigorous growing condition.
- Plants shall be watered before and after planting is complete.
- All trees must be staked, fertilized, and mulched and shall be guaranteed to exhibit a normal growth cycle for at least one (1) full year following planting. All material shall conform to the guidelines established in the most recent edition of the American Standard for Nursery Stock.
- Provide clean backfill soil, using material stockpiled on site. Soil shall be screened and free of any debris, foreign material, or stone.
- "Agriform" tabs or similar slow-release fertilizer shall be added to the planting pits before being backfilled.
- Amended planting mix shall consist of 1/3 screened topsoil, 1/3 sand, and 1/3 peat.
- All plantings shall be mulched with shredded hardwood bark, spread to a minimum depth of 3". Mulch is to be free from debris and foreign material and shall contain no pieces of inconsistent size.
- The Landscape Contractor shall be responsible for all work shown on the landscape drawings and specifications.
- No substitutions or changes of location, or plant types shall be made without the approval of the Landscape Architect or Owner's representative.
- The Landscape Architect shall be notified of any discrepancies between the plans and field conditions prior to installation.
- The Landscape Contractor shall be responsible for maintaining all plant material in a vertical condition throughout the guaranteed period.
- The Landscape Architect shall have the right at any stage of the installation to reject any work or material that does not meet the requirements of the plan and specifications, if requested by the owner.
- The Contractor shall be responsible for checking plant quantities to ensure quantities on drawings and plant list are the same. In the event of a discrepancy, the quantities on the plans shall prevail.
- The Landscape Contractor shall seed and mulch or sod (as indicated on plans) all areas disturbed during construction, throughout the contract limits.
- A pre-emergent weed control agent, "Preen" or equal, shall be applied uniformly to all planting beds prior to mulching.
- The Developer and Landscape Architect reserve the right to change location of plant material and alter plant species/variety at the time of installation based upon availability and quantity of material as well as site conditions. Materials will be of similar size, appearance and growth habit. All species deviations from the approved site plan must be approved by the City of Ann Arbor in writing prior to installation.
- All Lawn areas shall be Seeded or Sodded



## Evergreen Tree Planting Detail - 10' Ht. and Under

Scale: NTS

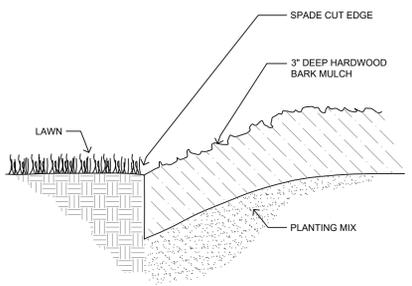
- Do not stake unless in heavy clay soil, windy conditions, 3" or greater diameter tree trunk or large crown. If staking is needed due to these conditions:
- Stake with 2 x 2 hardwood stakes, or approved equal, driven 6" - 8" outside of rootball.
  - Loosely stake tree trunk to allow for trunk flexing.
  - Stake trees just below first branch with 2" - 3" wide belt-like, nylon or plastic straps (2 per tree on opposite sides of tree, connect from tree to stake horizontally. Do not use rope or wire through a hose).
  - Remove all staking materials after 1 year.



## TREE PLANTING DETAIL

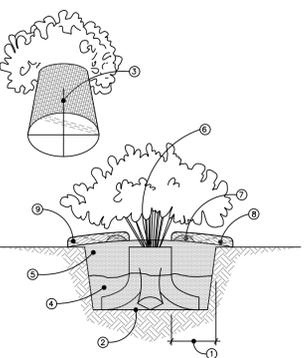
SCALE: NTS

Original: Dr. Steven Eggleston, Virginia Polytechnic Institute and State University, modified by the Michigan Department of Natural Resources, Forest Management Division, and the City of Ann Arbor.

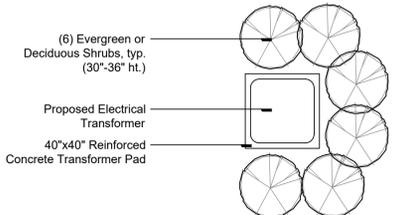


## Spade Cut Edging Detail

NTS



- (6) Evergreen or Deciduous Shrubs, typ. (30"-36" ht.)
- Proposed Electrical Transformer  
40"x40" Reinforced Concrete Transformer Pad

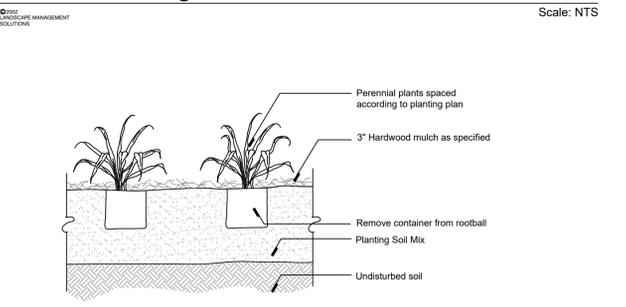


## Optional Transformer Screening Detail

Scale: 1/4" = 1'

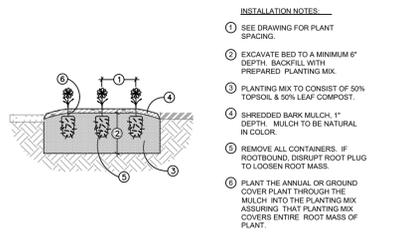
## Shrub Planting Detail - Container

Scale: NTS



## Perennial Planting Detail

NTS



## Annual & Ground Cover Planting Detail

Scale: NTS



## Decorative Mailbox - 4 Parcel CBU

Scale: NTS

Manufacturer: Salsbury Industries  
18300 Central Avenue  
Carson, CA 90746  
800.624.5269  
www.mailboxes.com

Model: 4 Parcel Lockers  
3308BLK-U  
Black

Quantity: 8 Total



## Decorative Mailbox - 8 Gang CBU

Scale: NTS

Manufacturer: Salsbury Industries  
18300 Central Avenue  
Carson, CA 90746  
800.624.5269  
www.mailboxes.com

Model: CBU 8 Doors & 2 Parcel Lockers  
3308BLK-U  
Black

Quantity: 2 Total



## Decorative Mailbox - 16 Gang CBU

Scale: NTS

Manufacturer: Salsbury Industries  
18300 Central Avenue  
Carson, CA 90746  
800.624.5269  
www.mailboxes.com

Model: CBU 16 Doors & 2 Parcel Lockers  
3312BLK-U  
Black

Quantity: 23 Total



## Decorative Mailbox - 12 Gang CBU

Scale: NTS

Manufacturer: Salsbury Industries  
18300 Central Avenue  
Carson, CA 90746  
800.624.5269  
www.mailboxes.com

Model: CBU 12 Doors & 1 Parcel Lockers  
3312BLK-U  
Black

Quantity: 10 Total

## Landscape Details & Notes

## Village of Ann Arbor

City of Ann Arbor, Michigan

prepared for:  
Robertson Brothers Co.  
6905 Telegraph Rd. - Suite 200  
Bloomfield Hills, MI 48301

Phone: 248.657.4968

DTN Management Company  
2502 Lake Lansing Rd.  
Lansing, MI 48912

Phone: 517.371.5300

job number: 18004  
date: 06.01.2021

drawn by: EMJ  
checked by: WTK



revisions:

10.11.2021	Per Municipal Review
01.20.2022	Per Municipal Review
03.31.2022	Per Municipal Review
06.15.2022	Per Municipal Review
08.22.2022	Per PC Comments

sheet no.



Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000



SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
OVERALL UTILITY PLAN

DATE: JUNE 7, 2021

2021-10-11	PER CITY AND WCWR
2022-01-19	PER CITY AND WCWR
2022-03-31	PER CITY AND WCWR
2022-06-06	PER CITY
2022-06-16	PER CITY
2022-07-12	REV. PHOTOMETRICS
2022-08-22	PER CITY

REVISIONS	
SCALE	0 50 100
1" =	100 FEET
DR.	SK CH. SS
P.M.	MB
BOOK	NA
JOB	18002264
SHEET NO.	40

DHU, WARREN ON THE PARK CONDOMINIUM, WASHTENAW COUNTY CONDOMINIUM SUBDIVISION PLAN NO. 1186, PER L.2929, PG.198, WASHTENAW COUNTY RECORDS

ANN ARBOR CHINESE CHRISTIAN CHURCH  
PIN: 09-09-16-100-045  
1750 DHU WARREN ROAD

CONNECT TO EX. WATERMAIN



Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
 866.850.4200 www.atwell-group.com  
 TWO TOWNE SQUARE, SUITE 700  
 SOUTHFIELD, MI 48076  
 248.447.2000

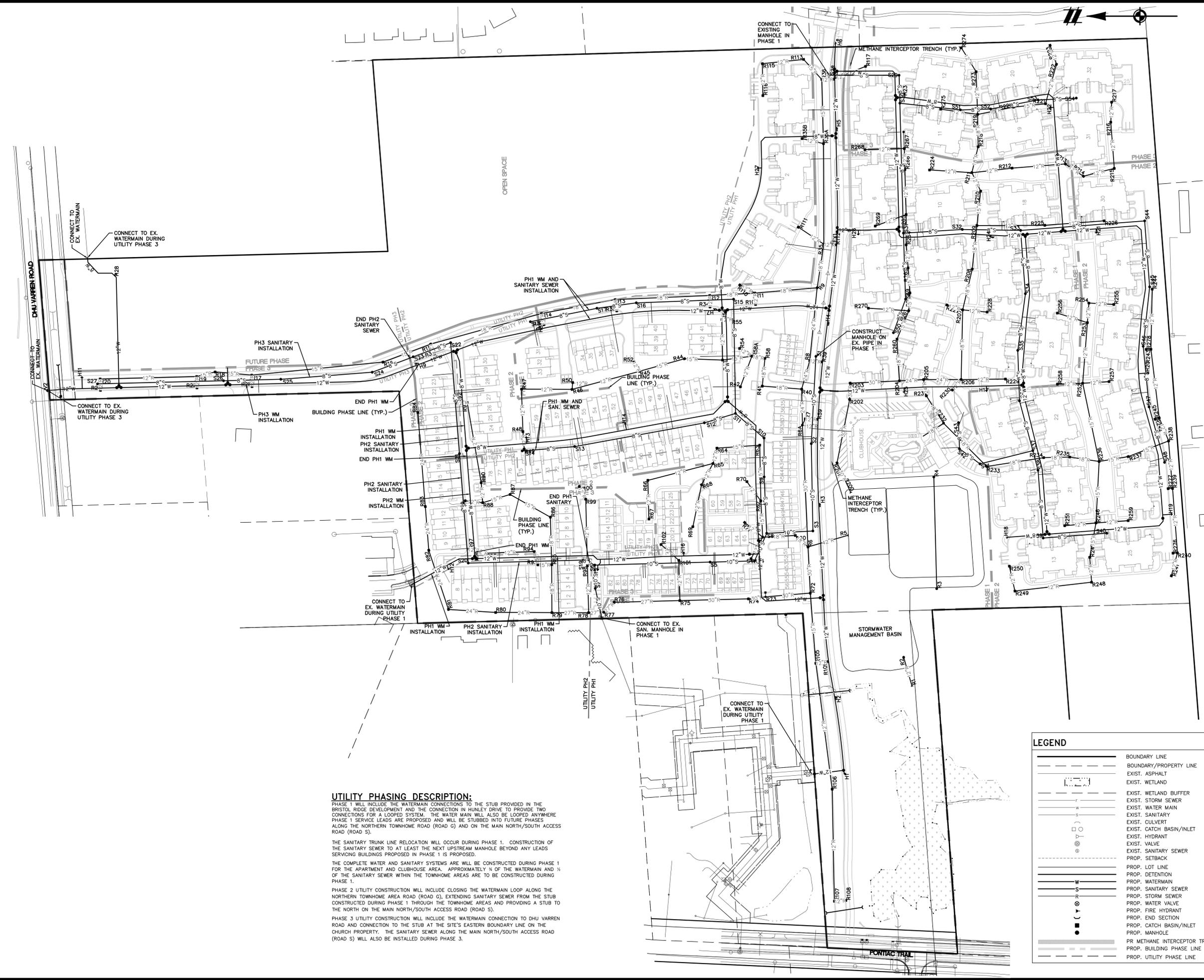
SECTION 16  
 TOWN 2 SOUTH, RANGE 6 EAST  
 ANN ARBOR TOWNSHIP  
 WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
 VILLAGE OF ANN ARBOR  
 SITE PLAN  
 UTILITY PHASING PLAN

DATE: JUNE 7, 2021

2021-10-11 PER CITY AND WCWR
2022-01-19 PER CITY AND WCWR
2022-03-31 PER CITY AND WCWR
2022-06-06 PER CITY
2022-06-16 PER CITY
2022-06-17 REV. PHOTOMETRICS
2022-07-12 PER CITY
2022-08-22 PER CITY

REVISIONS	
SCALE 0 50 100	
1" = 100 FEET	
DR. SK	CH. SS
P.M. MB	
BOOK NA	
JOB 18002264	
SHEET NO.	41



**UTILITY PHASING DESCRIPTION:**  
 PHASE 1 WILL INCLUDE THE WATERMAIN CONNECTIONS TO THE STUB PROVIDED IN THE BRISTOL RIDGE DEVELOPMENT AND THE CONNECTION IN HUNLEY DRIVE TO PROVIDE TWO CONNECTIONS FOR A LOOPED SYSTEM. THE WATER MAIN WILL ALSO BE LOOPED ANYWHERE PHASE 1 SERVICE LEADS ARE PROPOSED AND WILL BE STUBBED INTO FUTURE PHASES ALONG THE NORTHERN TOWNHOME ROAD (ROAD G) AND ON THE MAIN NORTH/SOUTH ACCESS ROAD (ROAD S).  
 THE SANITARY TRUNK LINE RELOCATION WILL OCCUR DURING PHASE 1. CONSTRUCTION OF THE SANITARY SEWER TO AT LEAST THE NEXT UPSTREAM MANHOLE BEYOND ANY LEADS SERVICING BUILDINGS PROPOSED IN PHASE 1 IS PROPOSED.  
 THE COMPLETE WATER AND SANITARY SYSTEMS ARE WILL BE CONSTRUCTED DURING PHASE 1 FOR THE APARTMENT AND CLUBHOUSE AREA. APPROXIMATELY 1/3 OF THE WATERMAIN AND 1/3 OF THE SANITARY SEWER WITHIN THE TOWNHOME AREAS ARE TO BE CONSTRUCTED DURING PHASE 1.  
 PHASE 2 UTILITY CONSTRUCTION WILL INCLUDE CLOSING THE WATERMAIN LOOP ALONG THE NORTHERN TOWNHOME AREA ROAD (ROAD G), EXTENDING SANITARY SEWER FROM THE STUB CONSTRUCTED DURING PHASE 1 THROUGH THE TOWNHOME AREAS AND PROVIDING A STUB TO THE NORTH ON THE MAIN NORTH/SOUTH ACCESS ROAD (ROAD S).  
 PHASE 3 UTILITY CONSTRUCTION WILL INCLUDE THE WATERMAIN CONNECTION TO DHU VAREN ROAD AND CONNECTION TO THE STUB AT THE SITE'S EASTERN BOUNDARY LINE ON THE CHURCH PROPERTY. THE SANITARY SEWER ALONG THE MAIN NORTH/SOUTH ACCESS ROAD (ROAD S) WILL ALSO BE INSTALLED DURING PHASE 3.

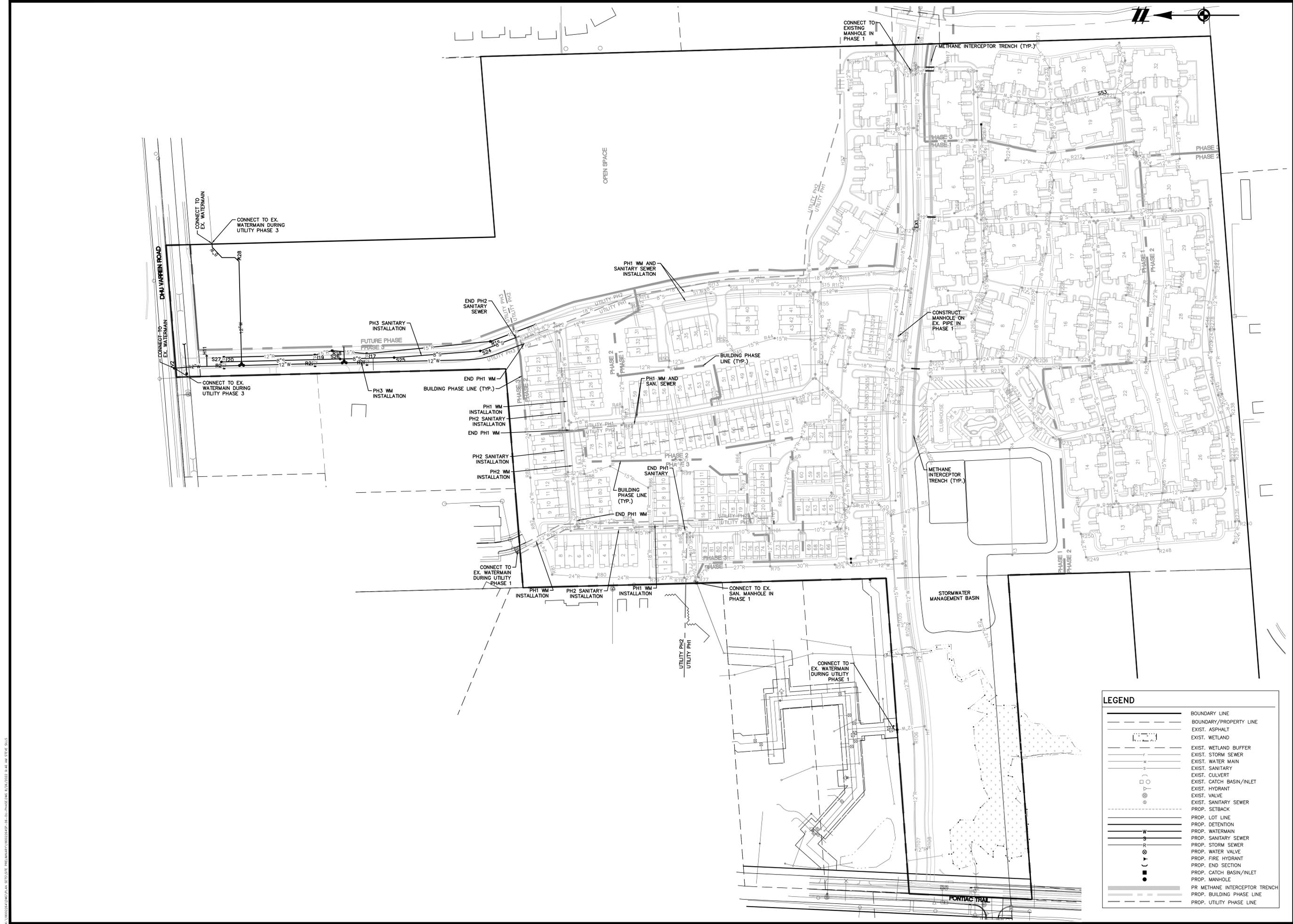
**LEGEND**

[Symbol]	BOUNDARY LINE
[Symbol]	BOUNDARY/PROPERTY LINE
[Symbol]	EXIST. ASPHALT
[Symbol]	EXIST. WETLAND
[Symbol]	EXIST. WETLAND BUFFER
[Symbol]	EXIST. STORM SEWER
[Symbol]	EXIST. WATER MAIN
[Symbol]	EXIST. SANITARY
[Symbol]	EXIST. CULVERT
[Symbol]	EXIST. CATCH BASIN/INLET
[Symbol]	EXIST. HYDRANT
[Symbol]	EXIST. VALVE
[Symbol]	EXIST. SANITARY SEWER
[Symbol]	PROP. SETBACK
[Symbol]	PROP. LOT LINE
[Symbol]	PROP. DETENTION
[Symbol]	PROP. WATERMAIN
[Symbol]	PROP. SANITARY SEWER
[Symbol]	PROP. STORM SEWER
[Symbol]	PROP. WATER VALVE
[Symbol]	PROP. FIRE HYDRANT
[Symbol]	PROP. END SECTION
[Symbol]	PROP. CATCH BASIN/INLET
[Symbol]	PROP. MANHOLE
[Symbol]	PR METHANE INTERCEPTOR TRENCH
[Symbol]	PROP. BUILDING PHASE LINE
[Symbol]	PROP. UTILITY PHASE LINE

K:\PROJECTS\2021\ANN ARBOR\18002264\18002264.dwg 6/7/2021 4:45 AM STEVE BILLS







**LEGEND**

	BOUNDARY LINE
	BOUNDARY/PROPERTY LINE
	EXIST. ASPHALT
	EXIST. WETLAND
	EXIST. WETLAND BUFFER
	EXIST. STORM SEWER
	EXIST. WATER MAIN
	EXIST. SANITARY
	EXIST. CULVERT
	EXIST. CATCH BASIN/INLET
	EXIST. HYDRANT
	EXIST. VALVE
	EXIST. SANITARY SEWER
	PROP. SETBACK
	PROP. LOT LINE
	PROP. DETENTION
	PROP. WATERMAIN
	PROP. SANITARY SEWER
	PROP. STORM SEWER
	PROP. WATER VALVE
	PROP. FIRE HYDRANT
	PROP. END SECTION
	PROP. CATCH BASIN/INLET
	PROP. MANHOLE
	PR METHANE INTERCEPTOR TRENCH
	PROP. BUILDING PHASE LINE
	PROP. UTILITY PHASE LINE

**Know what's below.  
Call before you dig.**

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
866.850.4200 [www.atwell-group.com](http://www.atwell-group.com)  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000

---

SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

---

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
PHASE 3 UTILITY PLAN

---

DATE: JUNE 7, 2021

2021-10-11 PER CITY AND WCWR  
2022-01-19 PER CITY AND WCWR  
2022-03-31 PER CITY AND WCWR  
2022-06-06 PER CITY  
2022-06-16 PER CITY  
2022-06-17 REV. PHOTOMETRICS  
2022-07-12 PER CITY  
2022-08-22 PER CITY

---

REVISIONS

SCALE 0 50 100  
1" = 100 FEET

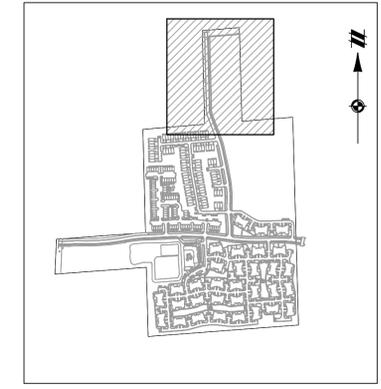
DR. SK CH. SS

P.M. MB

BOOK NA

JOB 18002264

SHEET NO. 44



KEY MAP  
1" = 750 FEET



Know what's below.

Call before you dig.  
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

ATWELL  
866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000

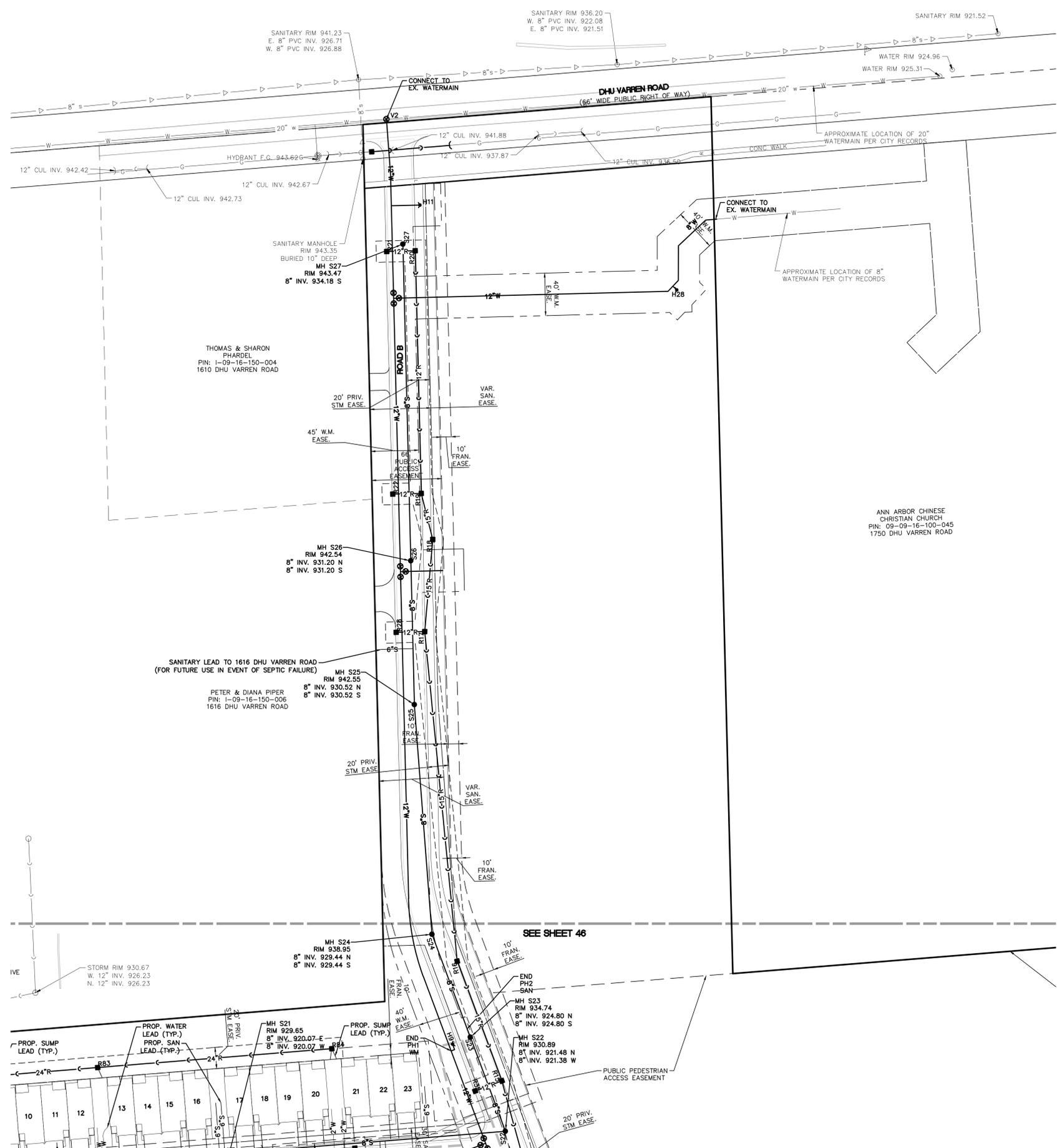


SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
UTILITY PLAN - AREA 1

DATE: JUNE 7, 2021  
2021-10-11 PER CITY AND WCWR  
2022-01-19 PER CITY AND WCWR  
2022-03-31 PER CITY AND WCWR  
2022-06-06 PER CITY  
2022-06-16 PER CITY  
2022-07-12 PER CITY  
2022-08-22 PER CITY

REVISIONS  
SCALE 0 25 50  
1" = 50 FEET  
DR. SK CH. SS  
BOOK NA  
JOB 18002264  
SHEET NO. 45



LEGEND	
	BOUNDARY LINE
	EXIST. EASEMENT
	SECTION LINE
	BOUNDARY/PROPERTY LINE
	SECTION CORNER
	EXIST. TREE LINE
	EXIST. FENCE
	EXIST. 1' CONTOUR
	EXIST. 5' CONTOUR
	EXIST. ASPHALT
	EXIST. GRAVEL
	MATCHLINE
	EXIST. BUILDING
	EXIST. WETLAND
	EXIST. WETLAND BUFFER
	EXIST. STORM SEWER
	EXIST. WATER MAIN
	EXIST. SANITARY
	EXIST. CULVERT
	EXIST. CATCH BASIN/INLET
	EXIST. VALVE
	EXIST. SANITARY SEWER
	PROP. SETBACK
	PROP. ACCESS EASEMENT
	PROP. STORM EASEMENT
	PROP. SANITARY EASEMENT
	PROP. WATER EASEMENT
	EX. WETLAND BUFFER
	PROP. FRANCHISE EASEMENT
	PROP. BUILDING
	PROP. ASPHALT
	PROP. WALK
	PROP. LOT LINE
	PROP. DETENTION
	PROP. WATERMAIN
	PROP. SANITARY SEWER
	PROP. STORM SEWER
	PROP. WATER VALVE
	PROP. FIRE HYDRANT
	PROP. END SECTION
	PROP. CATCH BASIN/INLET
	PROP. MANHOLE

K:\V02024\01\01\PLAN SET\UTILITY PLAN\UTILITY PLAN\18002264.dwg - 10:36:48 AM 8/24/2022 4:44 AM STEVE BULLS



Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE RESPONSIBLE FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

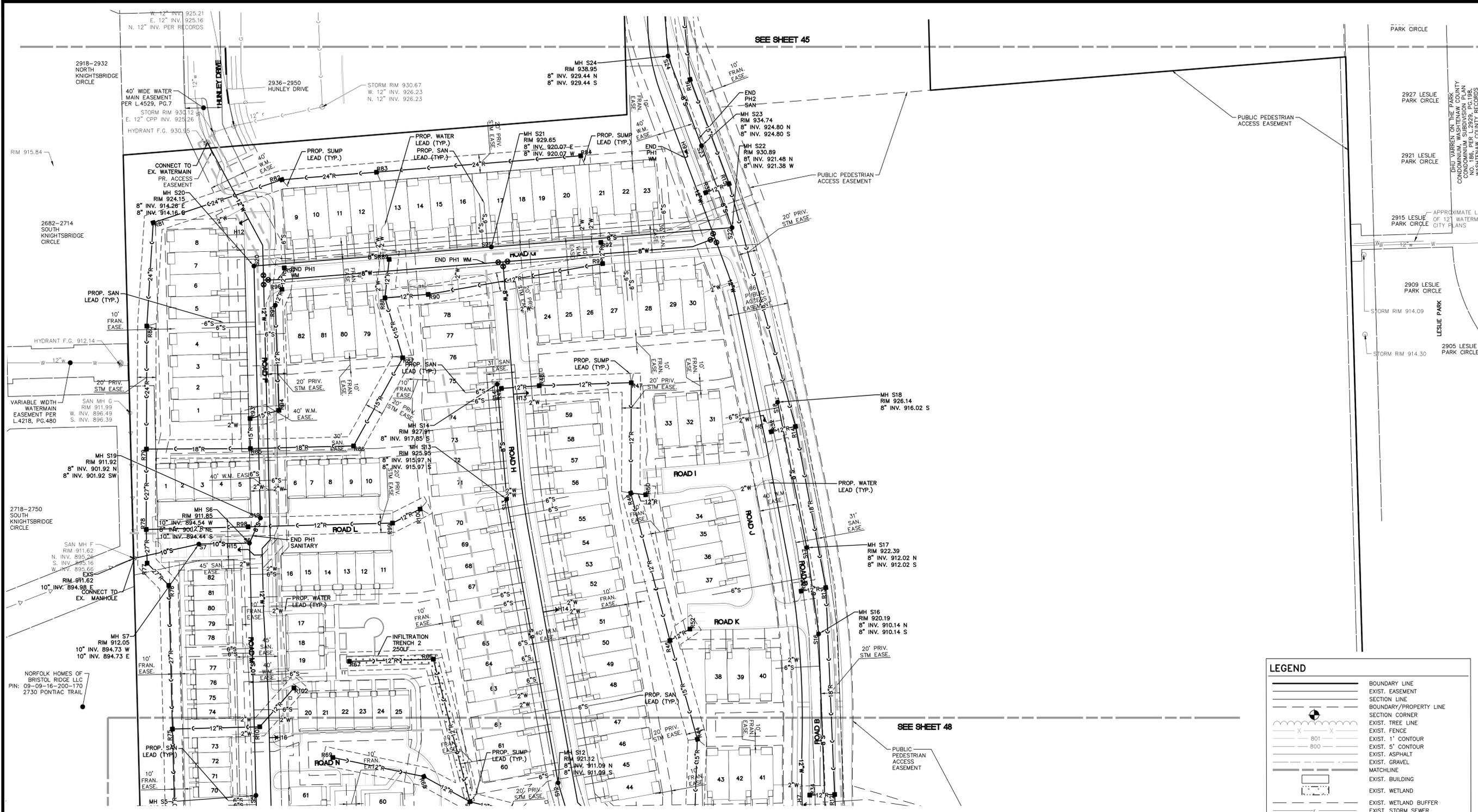
**ATWELL**  
 866.850.4200 www.atwell-group.com  
 TWO TOWNE SQUARE, SUITE 700  
 SOUTHFIELD, MI 48076  
 248.447.2000

SECTION 16  
 TOWN 2 SOUTH, RANGE 6 EAST  
 ANN ARBOR TOWNSHIP  
 WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
 VILLAGE OF ANN ARBOR  
 SITE PLAN  
 UTILITY PLAN - AREA 2

DATE: JUNE 7, 2021  
 2021-10-11 PER CITY AND WCWR  
 2022-01-19 PER CITY AND WCWR  
 2022-03-31 PER CITY AND WCWR  
 2022-06-06 PER CITY  
 2022-06-16 PER CITY  
 2022-06-17 REV. PHOTOMETRICS  
 2022-07-12 PER CITY  
 2022-08-22 PER CITY

REVISIONS  
 SCALE 0 25 50  
 1" = 50 FEET  
 DR. SK CH. SS  
 P.M. MB  
 BOOK NA  
 JOB 18002264  
 SHEET NO. 46

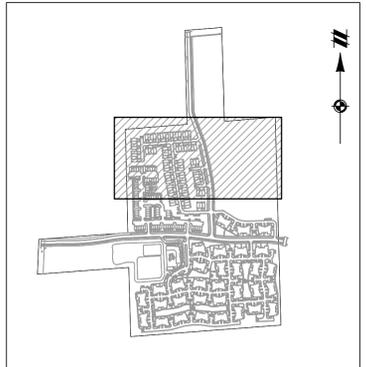


SEE SHEET 45

SEE SHEET 48

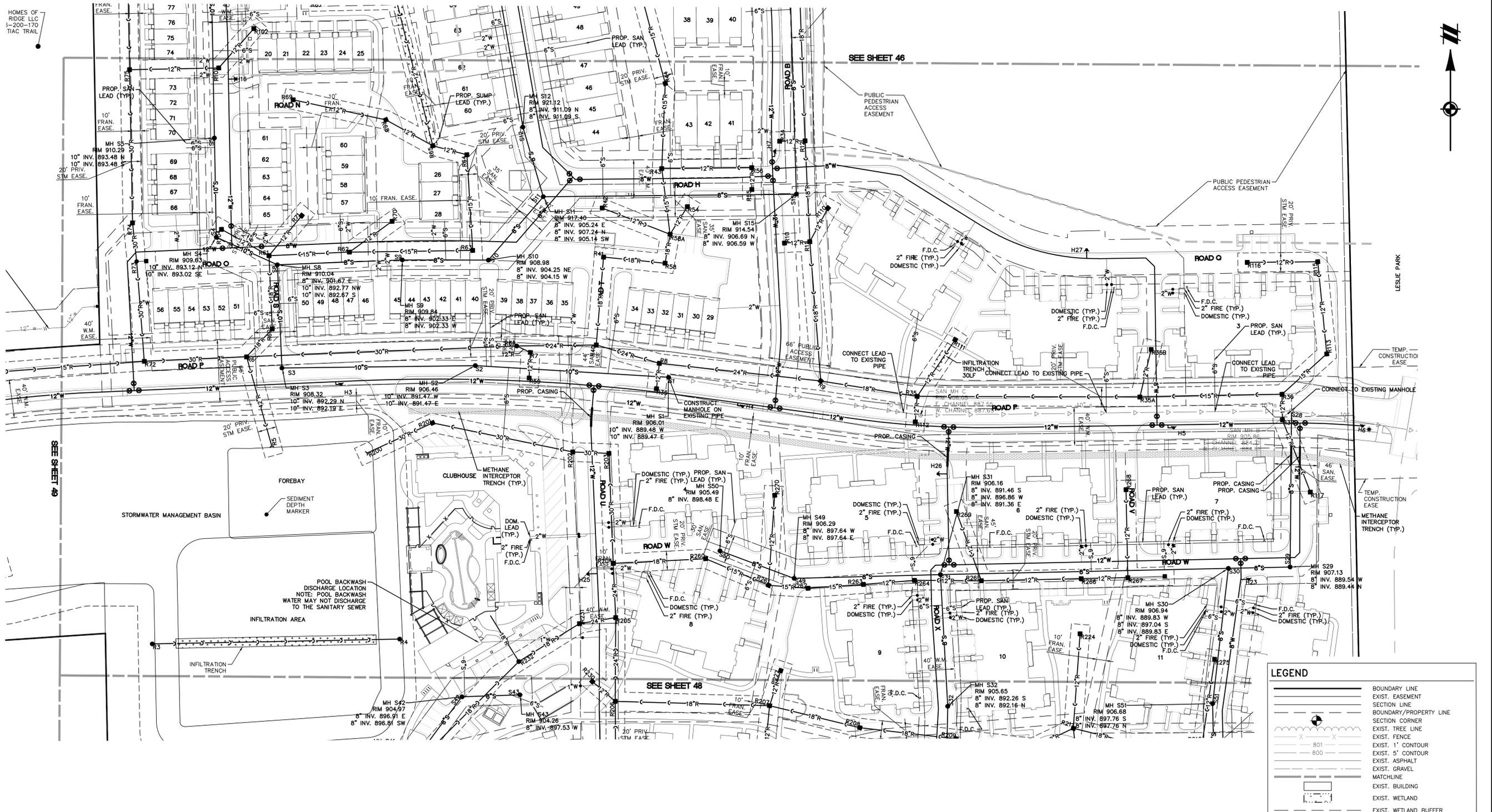
LEGEND

	BOUNDARY LINE
	EXIST. EASEMENT
	SECTION LINE
	BOUNDARY/PROPERTY LINE
	SECTION CORNER
	EXIST. TREE LINE
	EXIST. FENCE
	EXIST. 1' CONTOUR
	EXIST. 5' CONTOUR
	EXIST. ASPHALT
	EXIST. GRAVEL
	MATCHLINE
	EXIST. BUILDING
	EXIST. WETLAND
	EXIST. WETLAND BUFFER
	EXIST. STORM SEWER
	EXIST. WATER MAIN
	EXIST. SANITARY
	EXIST. CULVERT
	EXIST. CATCH BASIN/INLET
	EXIST. HYDRANT
	EXIST. VALVE
	EXIST. SANITARY SEWER
	PROP. SETBACK
	PROP. ACCESS EASEMENT
	PROP. STORM EASEMENT
	PROP. SANITARY EASEMENT
	PROP. WATER EASEMENT
	EX. WETLAND BUFFER
	PROP. FRANCHISE EASEMENT
	PROP. BUILDING
	PROP. ASPHALT
	PROP. WALK
	PROP. LOT LINE
	PROP. DETENTION
	PROP. WATERMAIN
	PROP. SANITARY SEWER
	PROP. STORM SEWER
	PROP. WATER VALVE
	PROP. FIRE HYDRANT
	PROP. END SECTION
	PROP. CATCH BASIN/INLET
	PROP. MANHOLE

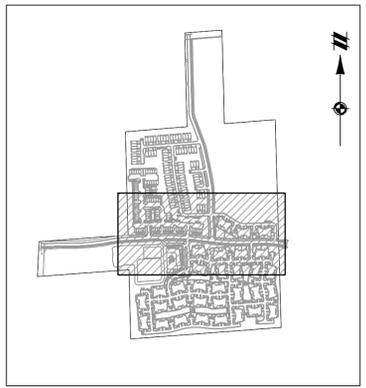


KEY MAP  
1" = 750 FEET

K:\PROJECTS\2022\18002264\18002264.dwg 6/7/2022 4:44 AM STEVE BATES



NOTE: ANY EXISTING SANITARY PIPE PROPOSED TO BE REUSED SHALL BE JETTED, VIDEOED AND REVIEWED BY THE CITY DURING THE CONSTRUCTION PLAN REVIEW PHASE. ANY NECESSARY REPAIRS TO THE PIPE WILL BE THE RESPONSIBILITY OF THE DEVELOPER.



LEGEND	
	BOUNDARY LINE
	EXIST. EASEMENT
	SECTION LINE
	BOUNDARY/PROPERTY LINE
	SECTION CORNER
	EXIST. TREE LINE
	EXIST. FENCE
	EXIST. 1' CONTOUR
	EXIST. 5' CONTOUR
	EXIST. ASPHALT
	EXIST. GRAVEL
	MATCHLINE
	EXIST. BUILDING
	EXIST. WETLAND
	EXIST. WETLAND BUFFER
	EXIST. STORM SEWER
	EXIST. WATER MAIN
	EXIST. SANITARY
	EXIST. CULVERT
	EXIST. CATCH BASIN/INLET
	EXIST. HYDRANT
	EXIST. VALVE
	EXIST. SANITARY SEWER
	PROP. SETBACK
	PROP. ACCESS EASEMENT
	PROP. STORM EASEMENT
	PROP. SANITARY EASEMENT
	PROP. WATER EASEMENT
	EX. WETLAND BUFFER
	PROP. FRANCHISE EASEMENT
	PROP. BUILDING
	PROP. ASPHALT
	PROP. WALK
	PROP. LOT LINE
	PROP. DETENTION
	PROP. WATERMAIN
	PROP. SANITARY SEWER
	PROP. STORM SEWER
	PROP. WATER VALVE
	PROP. FIRE HYDRANT
	PROP. CATCH BASIN/INLET
	PROP. MANHOLE

Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
UTILITY PLAN - AREA 3

SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

DATE: JUNE 7, 2021

NO.	DATE	DESCRIPTION
2021-10-11	PER CITY AND WCWR	
2022-01-19	PER CITY AND WCWR	
2022-03-31	PER CITY AND WCWR	
2022-06-06	PER CITY	
2022-06-16	PER CITY	
2022-06-17	REV. PHOTOMETRICS	
2022-07-12	PER CITY	
2022-08-22	PER CITY	

REVISIONS

SCALE: 0 25 50  
1" = 50 FEET

DR. SK CH. SS

P.M. MB

BOOK NA

JOB 18002264

SHEET NO. 47

K:\PROJECTS\2022\06\18002264\18002264.dwg 6/7/2022 9:44 AM STEVE BULLS

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

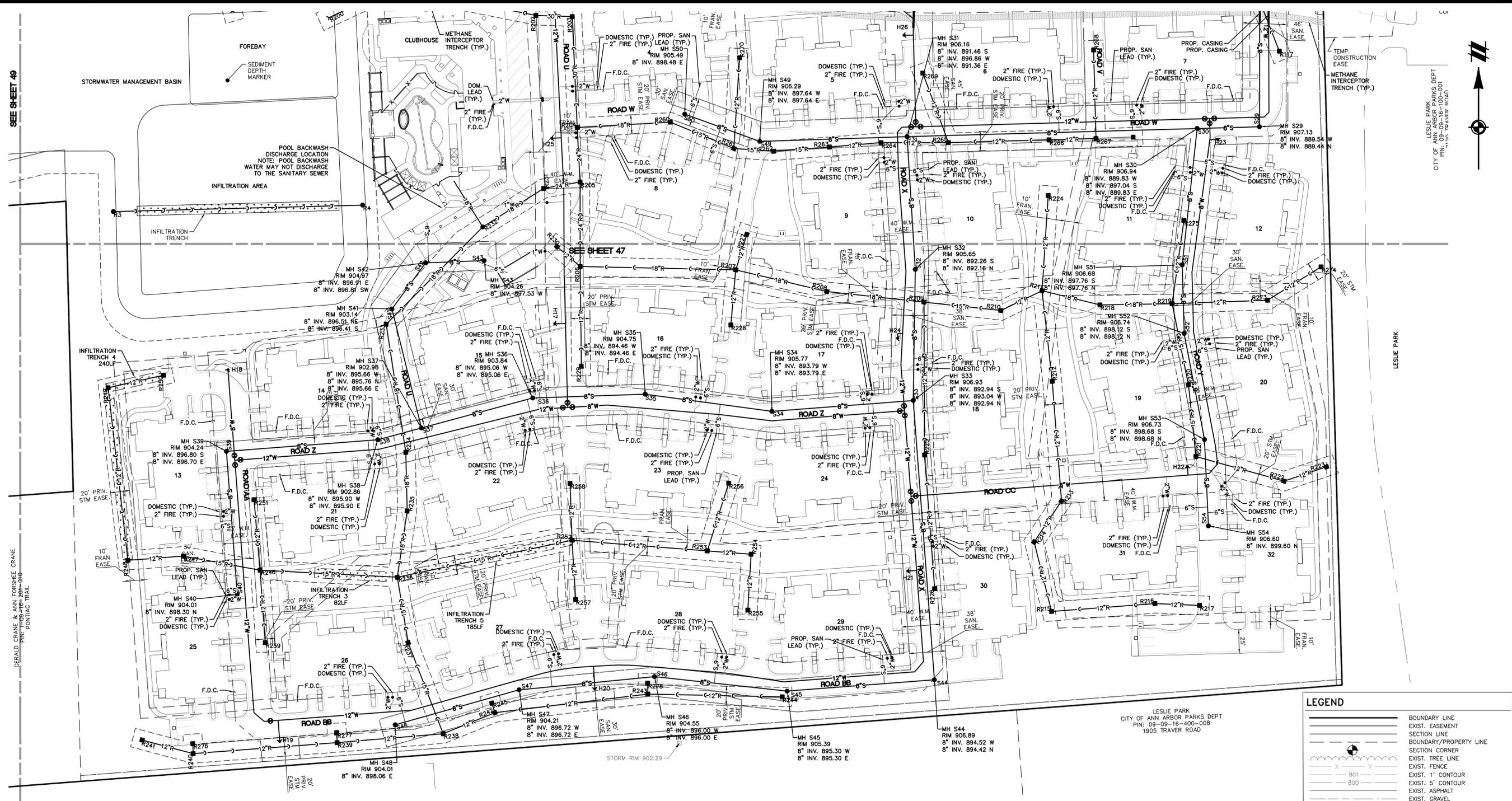
COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

ATWELL logo and contact information: 866.850.4200 www.atwell-group.com, Two Towne Square, Suite 700, Southfield, MI 48076, 248.447.2000

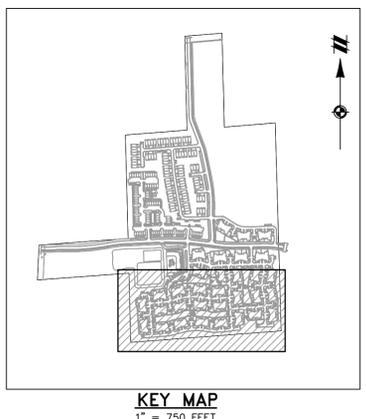
SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
UTILITY PLAN - AREA 4

Table with columns: DATE, REVISIONS, SCALE, DR., BOOK, SHEET NO. Includes date JUNE 7, 2021 and sheet number 48.



LEGEND table listing symbols for boundary lines, easements, section lines, and various utility types like water main, storm sewer, and fire hydrant.



ARROWWOOD HILLS COOPERATIVE  
PIN: 09-09-16-321-002  
2566 ARROWWOOD TRAIL

SEE SHEET 49

SEE SHEET 47

GERALD CRANE & ANN FOSSEE CRANE  
PIN: 201-990-040  
PONTIAC TRAIL



Vertical text on the left edge: K:\PROJECTS\2022\06\2022-06-16\2022-06-16-321-002-002.dwg, 8/26/2022 8:47 AM, STEVE BILLS

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
www.atwell-group.com  
866.850.4200  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000

SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
UTILITY PLAN - AREA 5

DATE: JUNE 7, 2021

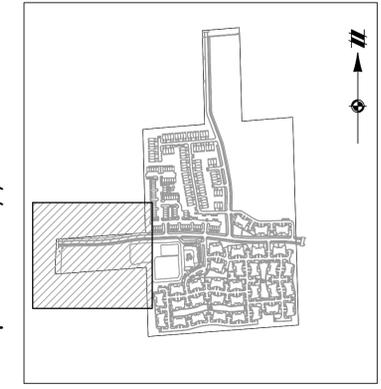
2021-10-11 PER CITY AND WCWR  
2022-01-19 PER CITY AND WCWR  
2022-03-31 PER CITY AND WCWR  
2022-06-06 PER CITY  
2022-06-16 PER CITY  
2022-06-17 REV. PHOTOMETRICS  
2022-07-12 PER CITY  
2022-08-22 PER CITY

REVISIONS

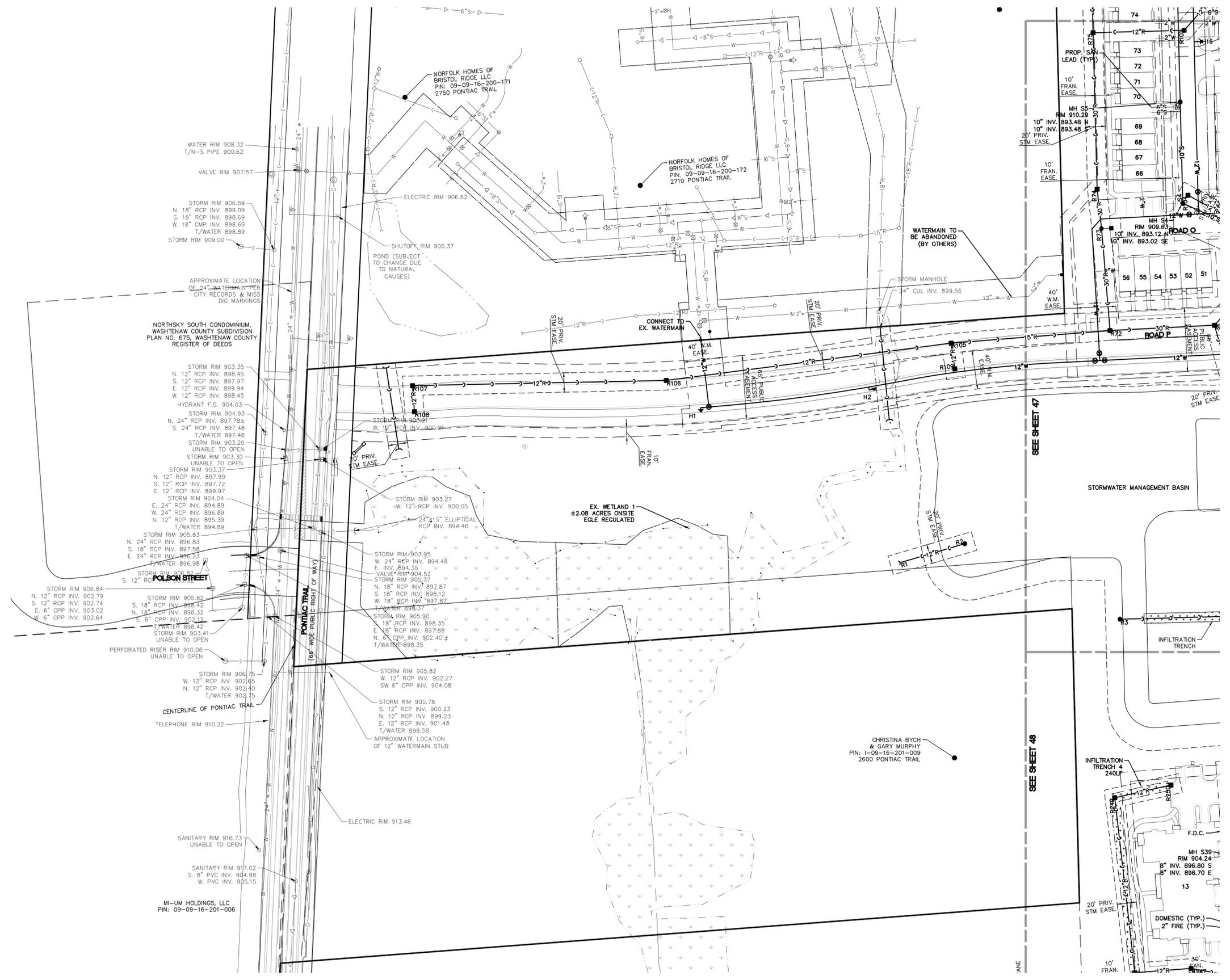
SCALE 0 25 50  
1" = 50 FEET

DR. SK CH. SS

P.M. MB  
BOOK NA  
JOB 18002264  
SHEET NO. 49



KEY MAP  
1" = 750 FEET



LEGEND	
[Symbol]	BOUNDARY LINE
[Symbol]	EXIST. EASEMENT
[Symbol]	SECTION LINE
[Symbol]	BOUNDARY/PROPERTY LINE
[Symbol]	SECTION CORNER
[Symbol]	EXIST. TREE LINE
[Symbol]	EXIST. FENCE
[Symbol]	EXIST. 1' CONTOUR
[Symbol]	EXIST. 5' CONTOUR
[Symbol]	EXIST. ASPHALT
[Symbol]	EXIST. GRAVEL
[Symbol]	MATCHLINE
[Symbol]	EXIST. BUILDING
[Symbol]	EXIST. WETLAND
[Symbol]	EXIST. WETLAND BUFFER
[Symbol]	EXIST. STORM SEWER
[Symbol]	EXIST. WATER MAIN
[Symbol]	EXIST. SANITARY
[Symbol]	EXIST. CULVERT
[Symbol]	EXIST. CATCH BASIN/INLET
[Symbol]	EXIST. HYDRANT
[Symbol]	EXIST. VALVE
[Symbol]	EXIST. SANITARY SEWER
[Symbol]	PROP. SETBACK
[Symbol]	PROP. ACCESS EASEMENT
[Symbol]	PROP. STORM EASEMENT
[Symbol]	PROP. SANITARY EASEMENT
[Symbol]	PROP. WATER EASEMENT
[Symbol]	EX. WETLAND BUFFER
[Symbol]	PROP. FRANCHISE EASEMENT
[Symbol]	PROP. BUILDING
[Symbol]	PROP. ASPHALT
[Symbol]	PROP. WALK
[Symbol]	PROP. LOT LINE
[Symbol]	PROP. DETENTION
[Symbol]	PROP. WATERMAIN
[Symbol]	PROP. SANITARY SEWER
[Symbol]	PROP. STORM SEWER
[Symbol]	PROP. WATER VALVE
[Symbol]	PROP. FIRE HYDRANT
[Symbol]	PROP. END SECTION
[Symbol]	PROP. CATCH BASIN/INLET
[Symbol]	PROP. MANHOLE

K:\18002264\UTILITY PLAN - AREA 5.dwg 6/29/2022 4:47 AM STEVE BILLS



Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ON THIS PLAN AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

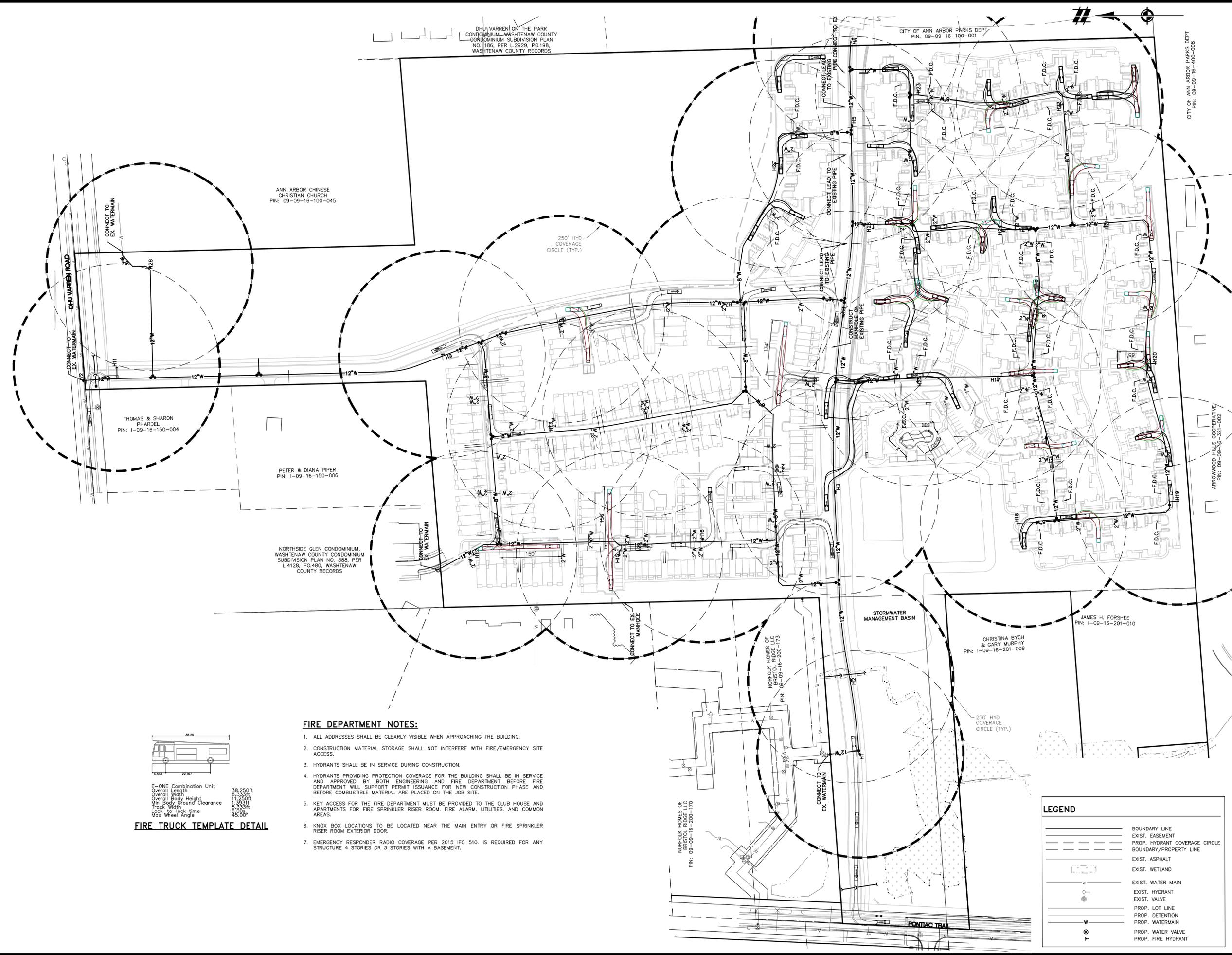
**ATWELL**  
 866.850.4200 www.atwell-group.com  
 TWO TOWNE SQUARE, SUITE 700  
 SOUTHFIELD, MI 48076  
 248.447.2000

SECTION 16  
 TOWN 2 SOUTH, RANGE 6 EAST  
 ANN ARBOR TOWNSHIP  
 WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
 VILLAGE OF ANN ARBOR  
 SITE PLAN  
 FIRE PROTECTION PLAN

DATE: JUNE 7, 2021  
 2021-10-11 PER CITY AND WCWR  
 2022-01-19 PER CITY AND WCWR  
 2022-03-31 PER CITY AND WCWR  
 2022-06-06 PER CITY  
 2022-06-16 PER CITY  
 2022-06-17 REV. PHOTOMETRICS  
 2022-07-12 PER CITY  
 2022-08-22 PER CITY

REVISIONS  
 SCALE 0 50 100  
 1" = 100 FEET  
 DR. SK CH. SS  
 P.M. MB  
 BOOK NA  
 JOB 18002264  
 SHEET NO. 50



ANN ARBOR CHINESE CHRISTIAN CHURCH  
 PIN: 09-09-16-100-045

THOMAS & SHARON PHARDEL  
 PIN: 1-09-16-150-004

PETER & DIANA PIPER  
 PIN: 1-09-16-150-006

NORTHSIDE GLEN CONDOMINIUM  
 WASHTENAW COUNTY CONDOMINIUM SUBDIVISION PLAN NO. 388, PER L.4128, PG.480, WASHTENAW COUNTY RECORDS

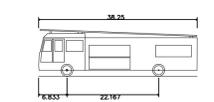
NORFOLK HOMES OF BRISTOL RIDGE LLC  
 PIN: 09-09-16-200-175

CHRISTINA BYCH & GARY MURPHY  
 PIN: 1-09-16-201-009

JAMES H. FORSHEE  
 PIN: 1-09-16-201-010

NORFOLK HOMES OF BRISTOL RIDGE LLC  
 PIN: 09-09-16-200-170

- FIRE DEPARTMENT NOTES:**
1. ALL ADDRESSES SHALL BE CLEARLY VISIBLE WHEN APPROACHING THE BUILDING.
  2. CONSTRUCTION MATERIAL STORAGE SHALL NOT INTERFERE WITH FIRE/EMERGENCY SITE ACCESS.
  3. HYDRANTS SHALL BE IN SERVICE DURING CONSTRUCTION.
  4. HYDRANTS PROVIDING PROTECTION COVERAGE FOR THE BUILDING SHALL BE IN SERVICE AND APPROVED BY BOTH ENGINEERING AND FIRE DEPARTMENT BEFORE FIRE DEPARTMENT WILL SUPPORT PERMIT ISSUANCE FOR NEW CONSTRUCTION PHASE AND BEFORE COMBUSTIBLE MATERIAL ARE PLACED ON THE JOB SITE.
  5. KEY ACCESS FOR THE FIRE DEPARTMENT MUST BE PROVIDED TO THE CLUB HOUSE AND APARTMENTS FOR FIRE SPRINKLER RISER ROOM, FIRE ALARM, UTILITIES, AND COMMON AREAS.
  6. KNOX BOX LOCATIONS TO BE LOCATED NEAR THE MAIN ENTRY OR FIRE SPRINKLER RISER ROOM EXTERIOR DOOR.
  7. EMERGENCY RESPONDER RADIO COVERAGE PER 2015 IFC 510. IS REQUIRED FOR ANY STRUCTURE 4 STORIES OR 3 STORIES WITH A BASEMENT.



**FIRE TRUCK TEMPLATE DETAIL**

E-ONE Combination Unit  
 Overall Length 38'-00"  
 Overall Width 8'-00"  
 Overall Body Height 11'-00"  
 Min Body Ground Clearance 1'-00"  
 Track Width 8'-00"  
 Lock-to-lock time 6:00"  
 Max Wheel Angle 45.00°

**LEGEND**

	BOUNDARY LINE
	EXIST. EASEMENT
	PROP. HYDRANT COVERAGE CIRCLE
	BOUNDARY/PROPERTY LINE
	EXIST. ASPHALT
	EXIST. WETLAND
	EXIST. WATER MAIN
	EXIST. HYDRANT
	EXIST. VALVE
	PROP. LOT LINE
	PROP. DETENTION
	PROP. WATERMAIN
	PROP. WATER VALVE
	PROP. FIRE HYDRANT

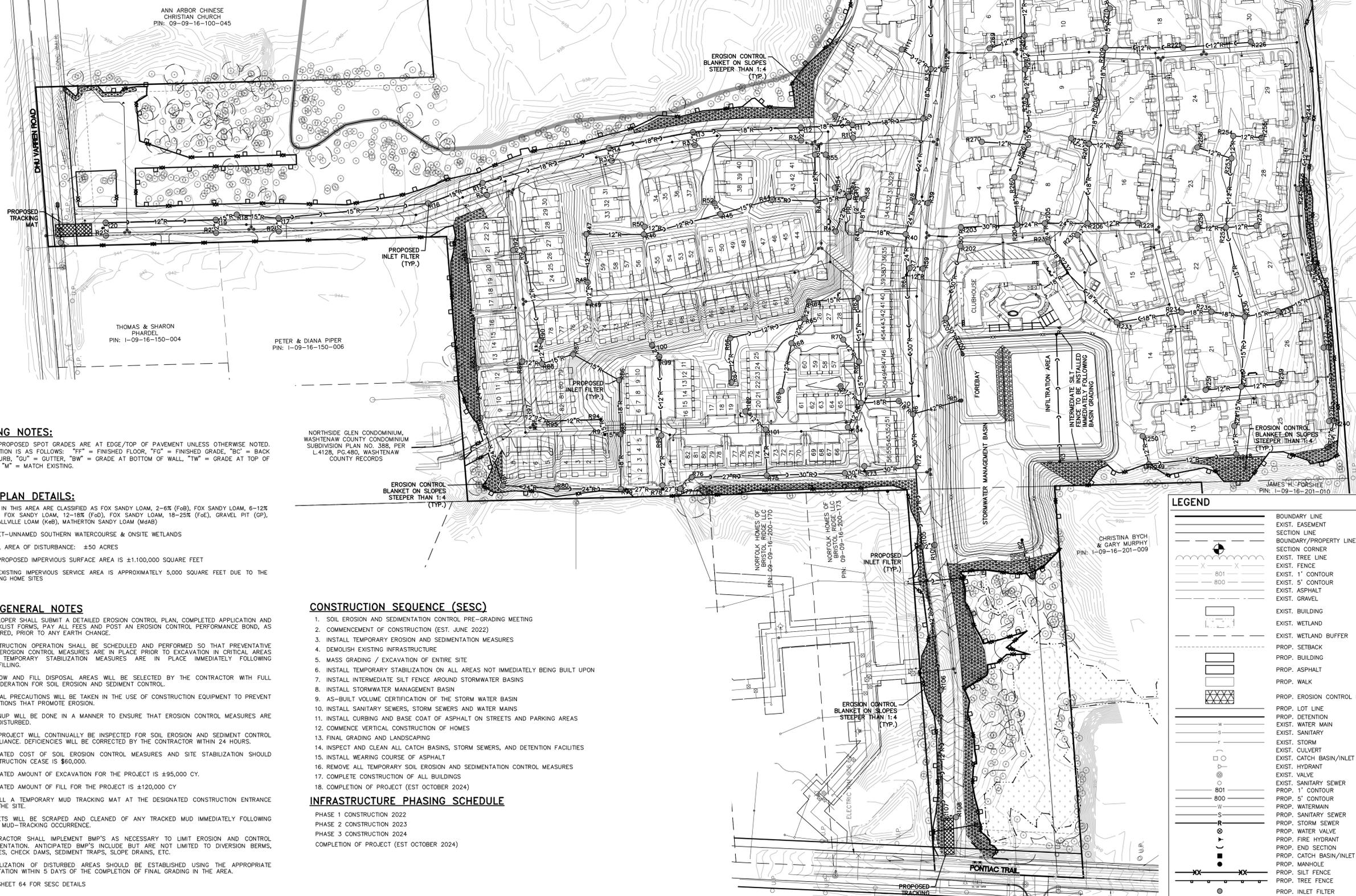
K:\PROJECTS\2021\ANN ARBOR\18002264\FIRE PROTECTION PLAN\18002264-FIRE PROTECTION PLAN.dwg 6/7/2021 4:47 AM STEVE BILLS

CONSTRUCTION TASK	2022					2023					2024															
	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	11
1 SESC Pre-Grading Meeting	X																									
2 Commence Construction	X																									
3 Install Temporary SESC Measures	X																									
4 Demolition of Existing Infrastructure	X	X																								
5 Mass Grading / Excavation of Entire Site	X	X																								
6 Temporary Stabilization	X																									
7 Install Intermediate SESC Measures	X																									
8 Install Stormwater Management Basin					X																					
9 As-built Volume Certification of Basin					X																					
10 Install underground utilities	X	X							X	X											X	X				
11 Install curbing and base coat pavement	X	X							X	X											X	X				
12 Construct Buildings		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13 Final Grading and Landscaping																										
14 Inspect and Clean Stormwater System																										
15 Install wearing course pavement																										
16 Remove Temporary SESC Measures																										
17 Project Completion																										X

DHU VARREN ON THE PARK CONDOMINIUM, WASHTEWAS COUNTY CONDOMINIUM SUBDIVISION PLAN NO. 186, PER L.2929, PG.198, WASHTEWAS COUNTY RECORDS

CITY OF ANN ARBOR PARKS DEPT PIN: 09-09-16-100-045

CITY OF ANN ARBOR PARKS DEPT PIN: 09-09-16-400-008



**GRADING NOTES:**

- ALL PROPOSED SPOT GRADES ARE AT EDGE/TOP OF PAVEMENT UNLESS OTHERWISE NOTED. NOTATION IS AS FOLLOWS: "FF" = FINISHED FLOOR, "FG" = FINISHED GRADE, "BC" = BACK OF CURB, "GU" = GUTTER, "BW" = GRADE AT BOTTOM OF WALL, "TW" = GRADE AT TOP OF WALL "M" = MATCH EXISTING.

**SESC PLAN DETAILS:**

- SOILS IN THIS AREA ARE CLASSIFIED AS FOX SANDY LOAM, 2-6% (FoS), FOX SANDY LOAM, 6-12% (FoS), FOX SANDY LOAM, 12-18% (FoS), FOX SANDY LOAM, 18-25% (FoS), GRAVEL PIT (GP), KENDALLVILLE LOAM (Ks), MATHERTON SANDY LOAM (Mgs)
- OUTLET-UNNAMED SOUTHERN WATERCOURSE & ONSITE WETLANDS
- TOTAL AREA OF DISTURBANCE: ±50 ACRES
- THE PROPOSED IMPERVIOUS SURFACE AREA IS ±1,100,000 SQUARE FEET
- THE EXISTING IMPERVIOUS SERVICE AREA IS APPROXIMATELY 5,000 SQUARE FEET DUE TO THE EXISTING HOME SITES

**SESC GENERAL NOTES**

- DEVELOPER SHALL SUBMIT A DETAILED EROSION CONTROL PLAN, COMPLETED APPLICATION AND CHECKLIST FORMS, PAY ALL FEES AND POST AN EROSION CONTROL PERFORMANCE BOND, AS REQUIRED, PRIOR TO ANY EARTH CHANGE.
- CONSTRUCTION OPERATION SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE SOIL EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION IN CRITICAL AREAS AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING.
- BORROW AND FILL DISPOSAL AREAS WILL BE SELECTED BY THE CONTRACTOR WITH FULL CONSIDERATION FOR SOIL EROSION AND SEDIMENT CONTROL.
- SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
- CLEANUP WILL BE DONE IN A MANNER TO ENSURE THAT EROSION CONTROL MEASURES ARE NOT DISTURBED.
- THE PROJECT WILL CONTINUALLY BE INSPECTED FOR SOIL EROSION AND SEDIMENT CONTROL COMPLIANCE. DEFICIENCIES WILL BE CORRECTED BY THE CONTRACTOR WITHIN 24 HOURS.
- ESTIMATED COST OF SOIL EROSION CONTROL MEASURES AND SITE STABILIZATION SHOULD CONSTRUCTION CEASE IS \$60,000.
- ESTIMATED AMOUNT OF EXCAVATION FOR THE PROJECT IS ±95,000 CY.
- ESTIMATED AMOUNT OF FILL FOR THE PROJECT IS ±120,000 CY
- INSTALL A TEMPORARY MUD TRACKING MAT AT THE DESIGNATED CONSTRUCTION ENTRANCE FOR THE SITE.
- STREETS WILL BE SCRAPPED AND CLEANED OF ANY TRACKED MUD IMMEDIATELY FOLLOWING EACH MUD-TRACKING OCCURRENCE.
- CONTRACTOR SHALL IMPLEMENT BMP'S AS NECESSARY TO LIMIT EROSION AND CONTROL SEDIMENTATION. ANTICIPATED BMP'S INCLUDE BUT ARE NOT LIMITED TO DIVERSION BERMS, SWALES, CHECK DAMS, SEDIMENT TRAPS, SLOPE DRAINS, ETC.
- STABILIZATION OF DISTURBED AREAS SHOULD BE ESTABLISHED USING THE APPROPRIATE VEGETATION WITHIN 5 DAYS OF THE COMPLETION OF FINAL GRADING IN THE AREA.
- SEE SHEET 64 FOR SESC DETAILS

**CONSTRUCTION SEQUENCE (SESC)**

- SOIL EROSION AND SEDIMENTATION CONTROL PRE-GRADING MEETING
- COMMENCEMENT OF CONSTRUCTION (EST. JUNE 2022)
- INSTALL TEMPORARY EROSION AND SEDIMENTATION MEASURES
- DEMOLISH EXISTING INFRASTRUCTURE
- MASS GRADING / EXCAVATION OF ENTIRE SITE
- INSTALL TEMPORARY STABILIZATION ON ALL AREAS NOT IMMEDIATELY BEING BUILT UPON
- INSTALL INTERMEDIATE SILT FENCE AROUND STORMWATER BASINS
- INSTALL STORMWATER MANAGEMENT BASIN
- AS-BUILT VOLUME CERTIFICATION OF THE STORM WATER BASIN
- INSTALL SANITARY SEWERS, STORM SEWERS AND WATER MAINS
- INSTALL CURBING AND BASE COAT OF ASPHALT ON STREETS AND PARKING AREAS
- COMMENCE VERTICAL CONSTRUCTION OF HOMES
- FINAL GRADING AND LANDSCAPING
- INSPECT AND CLEAN ALL CATCH BASINS, STORM SEWERS, AND DETENTION FACILITIES
- INSTALL WEARING COURSE OF ASPHALT
- REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES
- COMPLETE CONSTRUCTION OF ALL BUILDINGS
- COMPLETION OF PROJECT (EST OCTOBER 2024)

**INFRASTRUCTURE PHASING SCHEDULE**

- PHASE 1 CONSTRUCTION 2022
- PHASE 2 CONSTRUCTION 2023
- PHASE 3 CONSTRUCTION 2024
- COMPLETION OF PROJECT (EST OCTOBER 2024)

**LEGEND**

[Symbol]	BOUNDARY LINE
[Symbol]	EXIST. EASEMENT
[Symbol]	SECTION LINE
[Symbol]	BOUNDARY/PROPERTY LINE
[Symbol]	SECTION CORNER
[Symbol]	EXIST. TREE LINE
[Symbol]	EXIST. FENCE
[Symbol]	EXIST. 1' CONTOUR
[Symbol]	EXIST. 5' CONTOUR
[Symbol]	EXIST. ASPHALT
[Symbol]	EXIST. GRAVEL
[Symbol]	EXIST. BUILDING
[Symbol]	EXIST. WETLAND
[Symbol]	EXIST. WETLAND BUFFER
[Symbol]	PROP. SETBACK
[Symbol]	PROP. BUILDING
[Symbol]	PROP. ASPHALT
[Symbol]	PROP. WALK
[Symbol]	PROP. EROSION CONTROL BLANKET
[Symbol]	PROP. LOT LINE
[Symbol]	PROP. DETENTION
[Symbol]	EXIST. WATER MAIN
[Symbol]	EXIST. SANITARY
[Symbol]	EXIST. STORM
[Symbol]	EXIST. CULVERT
[Symbol]	EXIST. CATCH BASIN/INLET
[Symbol]	EXIST. HYDRANT
[Symbol]	EXIST. VALVE
[Symbol]	EXIST. SANITARY SEWER
[Symbol]	PROP. 1' CONTOUR
[Symbol]	PROP. 5' CONTOUR
[Symbol]	PROP. WATERMAIN
[Symbol]	PROP. SANITARY SEWER
[Symbol]	PROP. STORM SEWER
[Symbol]	PROP. WATER VALVE
[Symbol]	PROP. FIRE HYDRANT
[Symbol]	PROP. END SECTION
[Symbol]	PROP. CATCH BASIN/INLET
[Symbol]	PROP. MANHOLE
[Symbol]	PROP. SILT FENCE
[Symbol]	PROP. TREE FENCE
[Symbol]	PROP. INLET FILTER

**Know what's below. Call before you dig.**

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000

---

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
OVERALL GRADING & SESC PLAN

SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTEWAS COUNTY, MICHIGAN

---

ARROWOOD HILLS COOPERATIVE  
PIN: 09-09-16-321-002

JUNE 7, 2021

---

DATE	REVISIONS
2021-10-11 PER CITY AND WCWR	
2022-01-19 PER CITY AND WCWR	
2022-03-31 PER CITY AND WCWR	
2022-06-06 PER CITY	
2022-06-16 PER CITY	
2022-06-17 REV. PHOTOMETRICS	
2022-07-12 PER CITY	
2022-08-22 PER CITY	

---

SCALE 0 50 100  
1" = 100 FEET

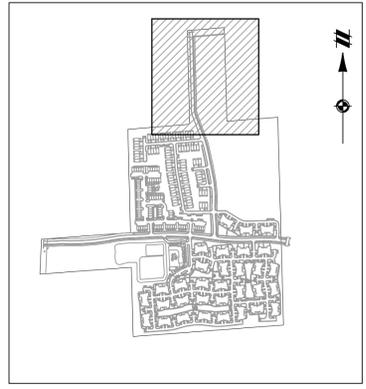
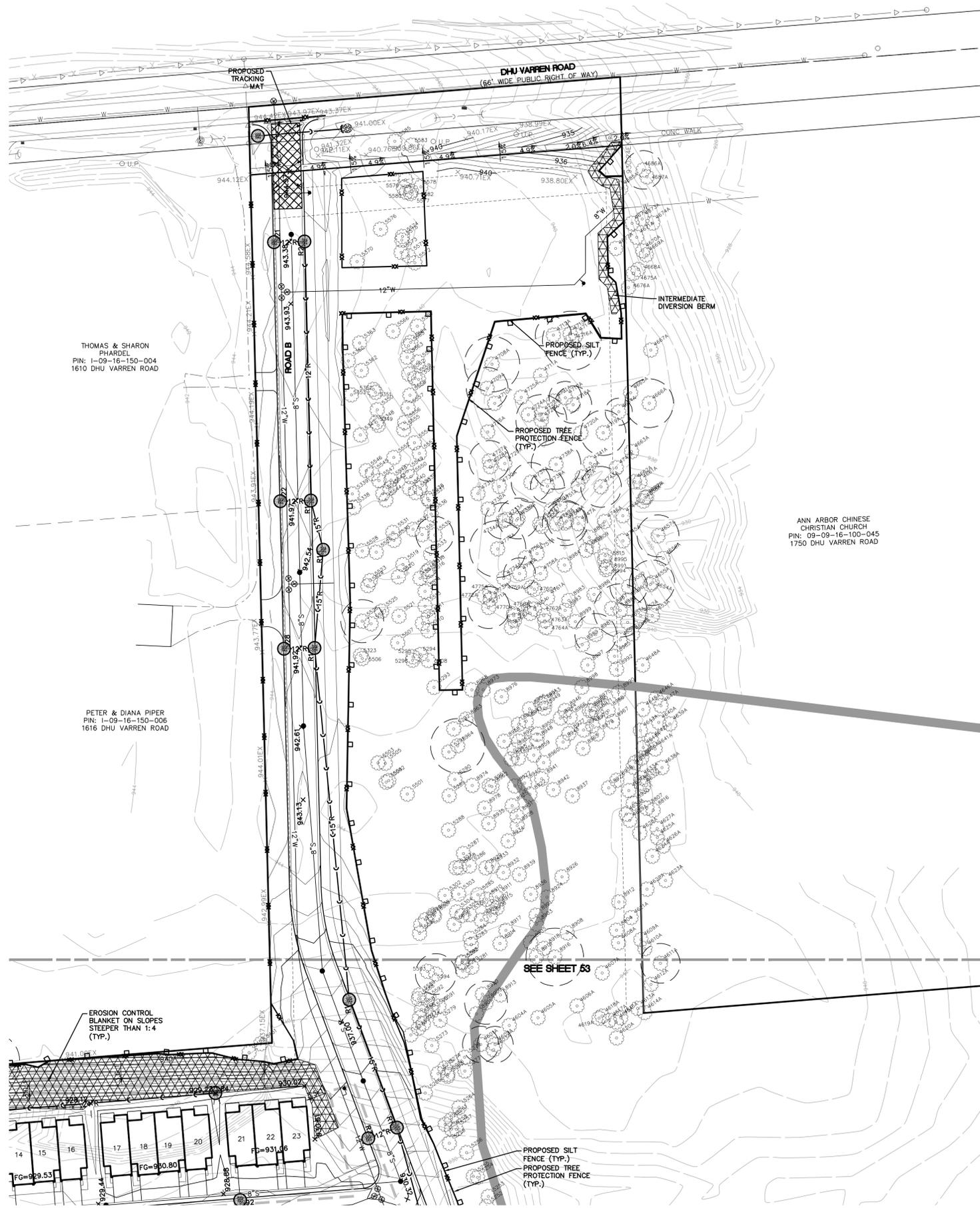
DR. SK CH. SS

P.M. MB

BOOK NA

JOB 18002264

SHEET NO. 51



KEY MAP  
1" = 750 FEET

LEGEND	
	BOUNDARY LINE
	EXIST. EASEMENT
	SECTION LINE
	BOUNDARY/PROPERTY LINE
	SECTION CORNER
	EXIST. TREE LINE
	EXIST. FENCE
	EXIST. 1' CONTOUR
	EXIST. 5' CONTOUR
	MATCHLINE
	EXIST. ASPHALT
	EXIST. GRAVEL
	EXIST. BUILDING
	EXIST. WETLAND
	EXIST. WETLAND BUFFER
	PROP. SETBACK
	PROP. BUILDING
	PROP. ASPHALT
	PROP. WALK
	PROP. EROSION CONTROL BLANKET
	PROP. LOT LINE
	PROP. DETENTION
	PROP. 1' CONTOUR
	PROP. 5' CONTOUR
	EXIST. WATER MAIN
	EXIST. SANITARY
	EXIST. STORM
	EXIST. CULVERT
	EXIST. CATCH BASIN/INLET
	EXIST. HYDRANT
	EXIST. VALVE
	EXIST. SANITARY SEWER
	PROP. WATERMAIN
	PROP. SANITARY SEWER
	PROP. STORM SEWER
	PROP. WATER VALVE
	PROP. FIRE HYDRANT
	PROP. END SECTION
	PROP. CATCH BASIN/INLET
	PROP. MANHOLE
	PROP. SILT FENCE
	PROP. TREE FENCE
	PROP. INLET FILTER

**811**  
Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000

SECTION 16	TOWN 2 SOUTH, RANGE 6 EAST
ANN ARBOR TOWNSHIP	ANN ARBOR CHURCH
ANN ARBOR CHURCH	ANN ARBOR CHURCH
ANN ARBOR CHURCH	ANN ARBOR CHURCH

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN

GRADING & SESC PLAN - AREA 1

REVISIONS	
DATE	JUNE 7, 2021
2021-10-11	PER CITY AND WCWR
2022-01-19	PER CITY AND WCWR
2022-03-31	PER CITY AND WCWR
2022-06-06	PER CITY
2022-06-16	PER CITY
2022-06-17	REV. PHOTOMETRICS
2022-07-12	PER CITY
2022-08-22	PER CITY

SCALE	0 25 50
1" = 50 FEET	
DR.	SK CH. SS
P.M.	MB
BOOK	NA
JOB	18002264
SHEET NO.	52

K:\PROJECTS\2021\18002264\18002264-01-01.dwg 8/26/2022 8:49 AM STEVE BILLS



Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000



SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
GRADING & SEC PLAN - AREA 2

DATE: JUNE 7, 2021

2021-10-11	PER CITY AND WCWR
2022-01-19	PER CITY AND WCWR
2022-03-31	PER CITY AND WCWR
2022-06-06	PER CITY
2022-06-16	PER CITY
2022-06-17	REV. PHOTOMETRICS
2022-07-12	PER CITY
2022-08-22	PER CITY

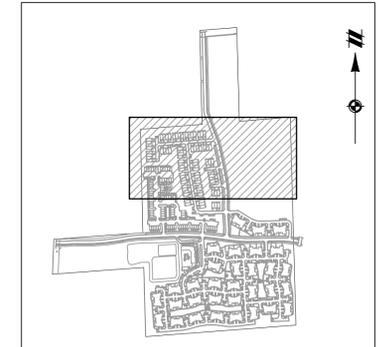
REVISIONS	
SCALE	0 25 50
1" = 50 FEET	
DR.	SK CH. SS
P.M.	MB
BOOK	NA
JOB	18002264
SHEET NO.	53



SEE SHEET 52

SEE SHEET 55

LEGEND	
	BOUNDARY LINE
	EXIST. EASEMENT
	SECTION LINE
	BOUNDARY/PROPERTY LINE
	SECTION CORNER
	EXIST. TREE LINE
	EXIST. FENCE
	EXIST. 1' CONTOUR
	EXIST. 5' CONTOUR
	MATCHLINE
	EXIST. ASPHALT
	EXIST. GRAVEL
	EXIST. BUILDING
	EXIST. WETLAND
	EXIST. WETLAND BUFFER
	PROP. SETBACK
	PROP. BUILDING
	PROP. ASPHALT
	PROP. WALK
	PROP. EROSION CONTROL BLANKET
	PROP. LOT LINE
	PROP. DETENTION
	PROP. 1' CONTOUR
	PROP. 5' CONTOUR
	EXIST. WATER MAIN
	EXIST. SANITARY
	EXIST. STORM
	EXIST. CULVERT
	EXIST. CATCH BASIN/INLET
	EXIST. HYDRANT
	EXIST. VALVE
	EXIST. SANITARY SEWER
	PROP. WATERMAIN
	PROP. SANITARY SEWER
	PROP. STORM SEWER
	PROP. WATER VALVE
	PROP. FIRE HYDRANT
	PROP. END SECTION
	PROP. CATCH BASIN/INLET
	PROP. MANHOLE
	PROP. SILT FENCE
	PROP. TREE FENCE
	PROP. INLET FILTER



KEY MAP  
1" = 750 FEET

K:\PROJECTS\2021\ANN ARBOR\18002264\18002264.dwg: 6/7/2022 4:49 AM STEW BILLS

Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000

SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

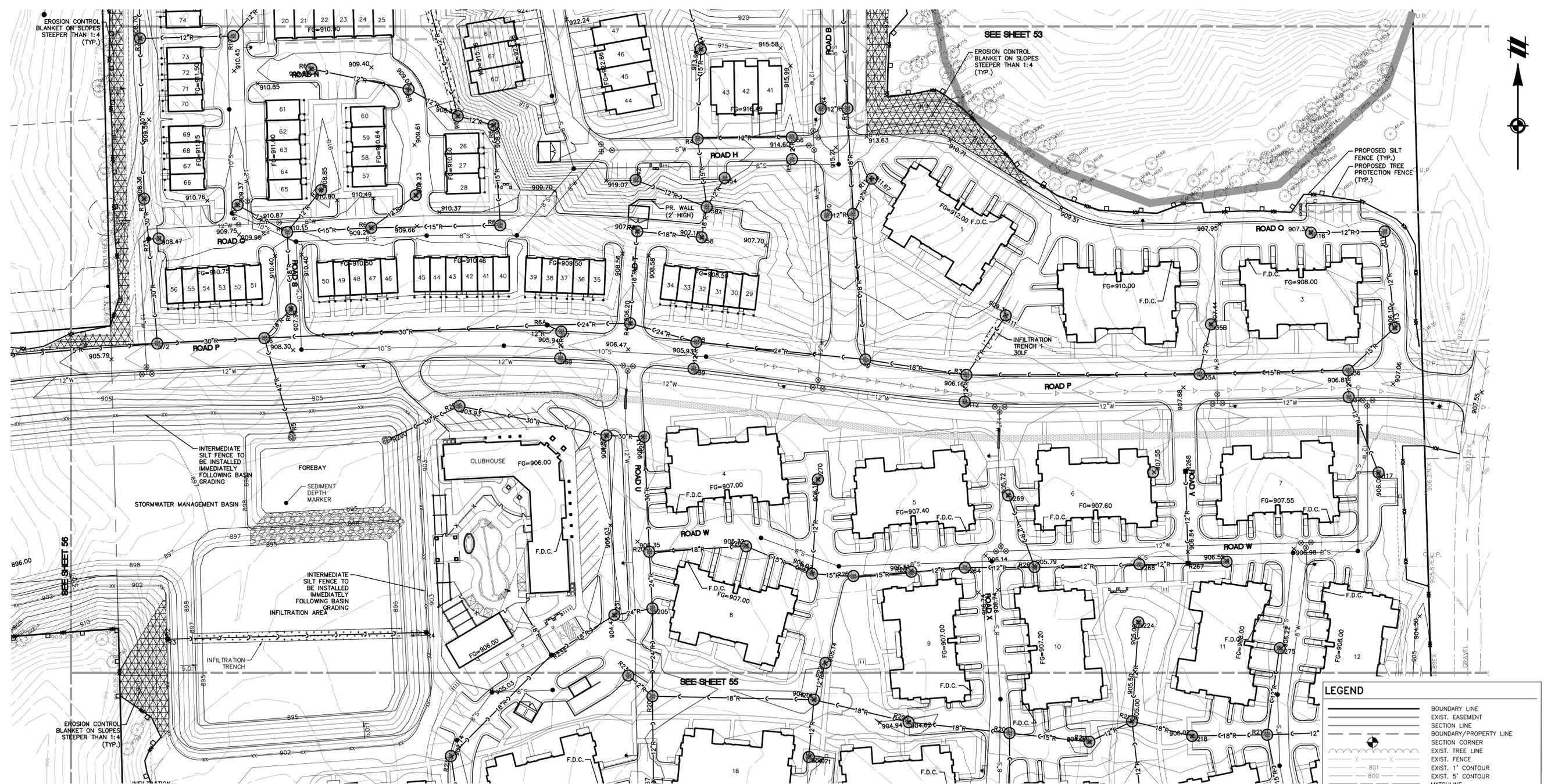
CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
GRADING & SEC PLAN - AREA 3

DATE: JUNE 7, 2021

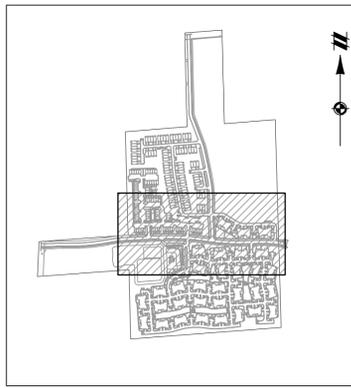
Table with 2 columns: Date Range and Description. Includes entries for 2021-10-11, 2022-01-19, 2022-03-31, 2022-06-06, 2022-06-16, 2022-06-17, and 2022-08-22.

Table with 2 columns: Description and Date. Includes entries for REVISIONS, SCALE, and DR. SK. CH. SS.

REVISIONS  
SCALE 0 25 50  
1" = 50 FEET  
DR. SK CH. SS  
P.M. MB  
BOOK NA  
JOB 18002264  
SHEET NO. 54

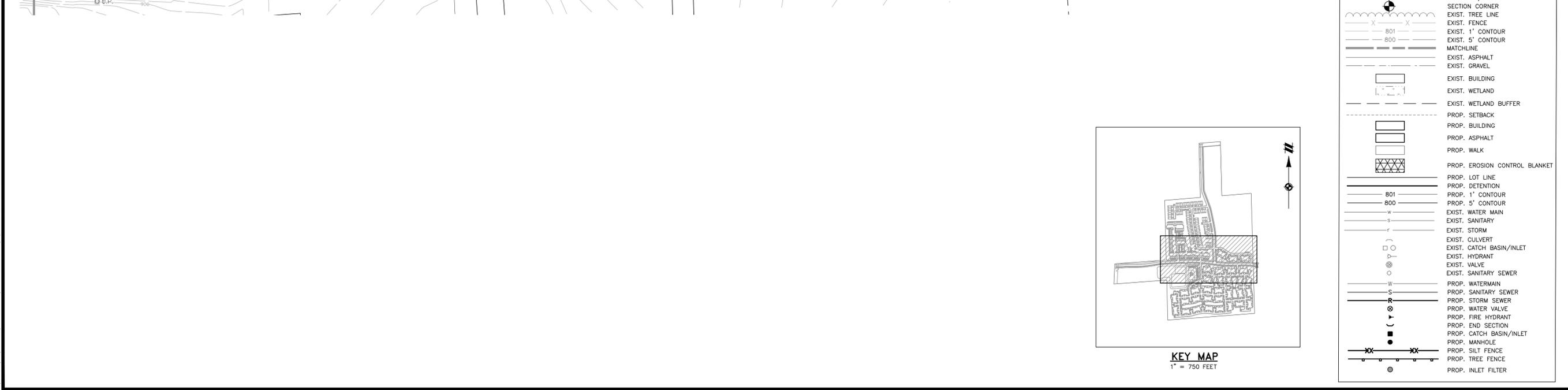
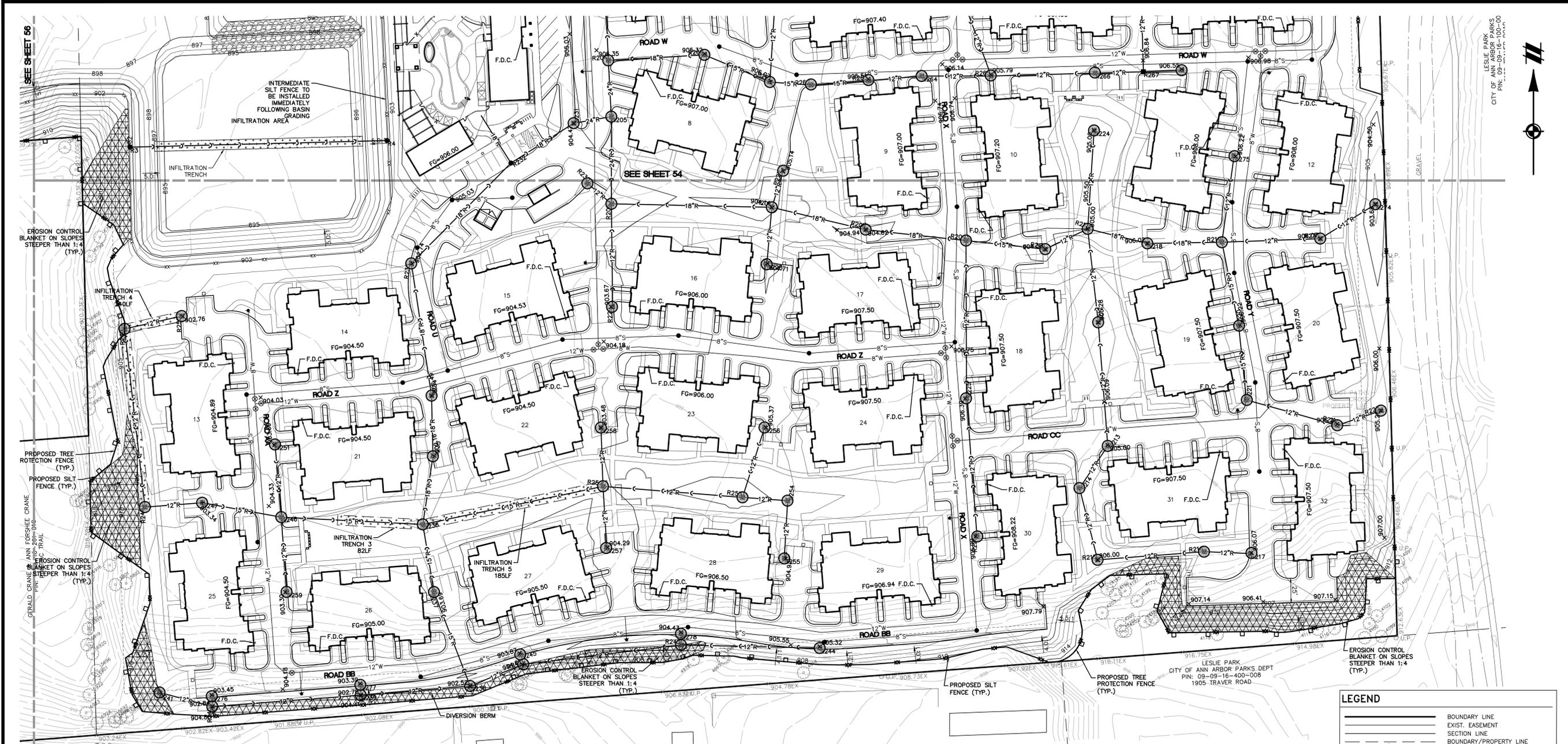


LEGEND table listing symbols for boundary lines, easements, section lines, corners, trees, contours, matchlines, and various utility types (asphalt, gravel, building, wetland, setback, etc.).



KEY MAP  
1" = 750 FEET

Vertical text on the left edge: K:\PROJECTS\ANN ARBOR\ANN ARBOR\_VILLAGE\18002264\18002264-03-SEC PLAN AREA 3.dwg 8/29/2022 8:50 AM ATWELL



**LEGEND**

	BOUNDARY LINE
	EXIST. EASEMENT
	SECTION LINE
	BOUNDARY/PROPERTY LINE
	EXIST. TREE LINE
	EXIST. FENCE
	EXIST. 1' CONTOUR
	EXIST. 5' CONTOUR
	MATCHLINE
	EXIST. ASPHALT
	EXIST. GRAVEL
	EXIST. BUILDING
	EXIST. WETLAND
	EXIST. WETLAND BUFFER
	PROP. SETBACK
	PROP. BUILDING
	PROP. ASPHALT
	PROP. WALK
	PROP. EROSION CONTROL BLANKET
	PROP. LOT LINE
	PROP. DETENTION
	PROP. 1' CONTOUR
	PROP. 5' CONTOUR
	EXIST. WATER MAIN
	EXIST. SANITARY
	EXIST. STORM
	EXIST. CULVERT
	EXIST. CATCH BASIN/INLET
	EXIST. HYDRANT
	EXIST. VALVE
	EXIST. SANITARY SEWER
	PROP. WATERMAIN
	PROP. SANITARY SEWER
	PROP. STORM SEWER
	PROP. WATER VALVE
	PROP. FIRE HYDRANT
	PROP. END SECTION
	PROP. CATCH BASIN/INLET
	PROP. MANHOLE
	PROP. SILT FENCE
	PROP. TREE FENCE
	PROP. INLET FILTER

**Know what's below. Call before you dig.**

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000

---

SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

---

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
GRADING & SEC PLAN - AREA 4

---

DATE: JUNE 7, 2021

2021-10-11	PER CITY AND WCVRC
2022-01-19	PER CITY AND WCVRC
2022-03-31	PER CITY AND WCVRC
2022-06-06	PER CITY
2022-06-16	PER CITY
2022-06-17	REV. PHOTOMETRICS
2022-07-12	PER CITY
2022-08-22	PER CITY

---

REVISIONS

SCALE: 0 25 50  
1" = 50 FEET

DR. SK CH. SS

P.M. MB

BOOK NA

JOB 18002264

SHEET NO. 55





Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
 866.850.4200 www.atwell-group.com  
 TWO TOWNE SQUARE, SUITE 700  
 SOUTHFIELD, MI 48076  
 248.447.2000

SECTION 16  
 TOWN 2 SOUTH, RANGE 6 EAST  
 ANN ARBOR TOWNSHIP  
 WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
 VILLAGE OF ANN ARBOR  
 SITE PLAN  
 INTERMEDIATE SECS PLAN

DATE: JUNE 7, 2021

2021-10-11	PER CITY AND WCWR
2022-01-19	PER CITY AND WCWR
2022-03-31	PER CITY AND WCWR
2022-06-06	PER CITY
2022-06-16	PER CITY
2022-06-17	REV. PHOTOMETRICS
2022-07-12	PER CITY
2022-08-22	PER CITY

REVISIONS

SCALE	0 50 100
1" =	100 FEET
DR.	SK CH. SS
P.M.	MB
BOOK	NA
JOB	18002264
SHEET NO.	57



**LEGEND**

[Symbol]	BOUNDARY LINE
[Symbol]	EXIST. EASEMENT
[Symbol]	SECTION LINE
[Symbol]	BOUNDARY/PROPERTY LINE
[Symbol]	SECTION CORNER
[Symbol]	EXIST. TREE LINE
[Symbol]	EXIST. FENCE
[Symbol]	EXIST. 1' CONTOUR
[Symbol]	EXIST. 5' CONTOUR
[Symbol]	EXIST. ASPHALT
[Symbol]	EXIST. GRAVEL
[Symbol]	EXIST. BUILDING
[Symbol]	EXIST. WETLAND
[Symbol]	EXIST. WETLAND BUFFER
[Symbol]	PROP. SETBACK
[Symbol]	PROP. BUILDING
[Symbol]	PROP. ASPHALT
[Symbol]	PROP. WALK
[Symbol]	PROP. EROSION CONTROL BLANKET
[Symbol]	PROP. LOT LINE
[Symbol]	PROP. DETENTION
[Symbol]	PROP. 1' CONTOUR
[Symbol]	PROP. 5' CONTOUR
[Symbol]	EXIST. SANITARY
[Symbol]	EXIST. STORM
[Symbol]	EXIST. CULVERT
[Symbol]	EXIST. CATCH BASIN/INLET
[Symbol]	EXIST. SANITARY SEWER
[Symbol]	PROP. WATERMAIN
[Symbol]	PROP. SANITARY SEWER
[Symbol]	PROP. STORM SEWER
[Symbol]	PROP. WATER VALVE
[Symbol]	PROP. FIRE HYDRANT
[Symbol]	PROP. END SECTION
[Symbol]	PROP. END SECTION
[Symbol]	PROP. CATCH BASIN/INLET
[Symbol]	PROP. MANHOLE
[Symbol]	PROP. SILT FENCE
[Symbol]	PROP. TREE FENCE
[Symbol]	PROP. INLET FILTER

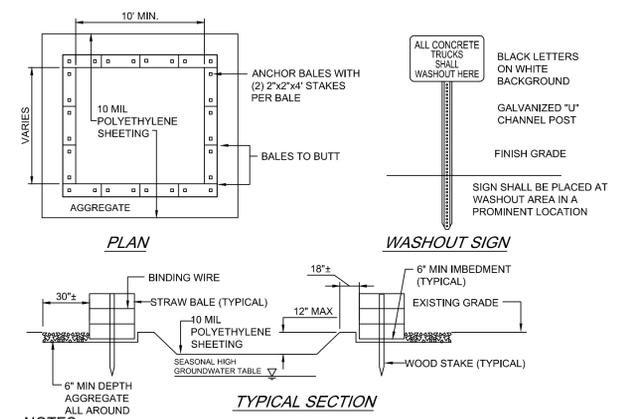
K:\PROJECTS\2022\18002264\18002264-06-SEC-INT-PLAN-57.DWG 6/07/2022 8:51 AM ATWELL

**Call before you dig.**  
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

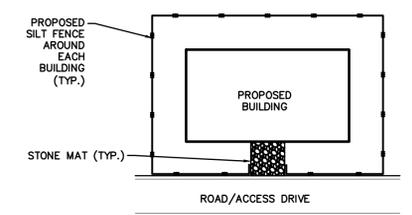
NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000

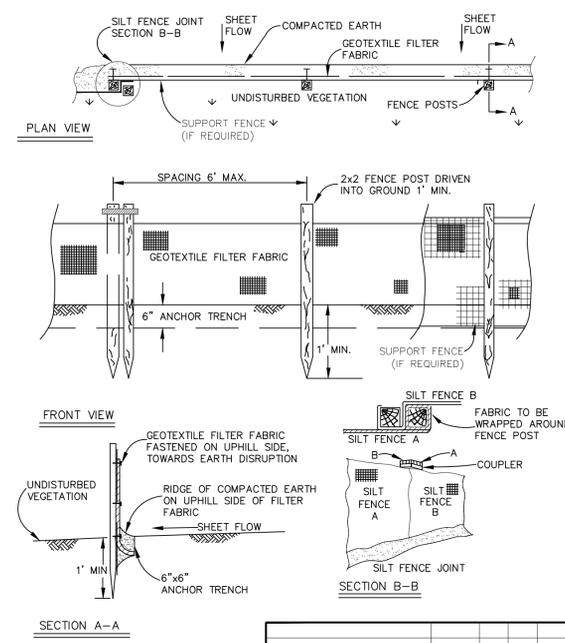


- NOTES:**
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
  2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
  3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
  4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
  5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
  6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.



1. INSTALL STONE MUD MAT AT EACH BUILDING
2. INSTALL SILT FENCE SURROUND BUILDING SITE
3. MAINTAIN SILT FENCE AND TRACKING MAT IN FUNCTIONING CONDITION THROUGHOUT CONSTRUCTION
4. STABILIZE GROUND BEFORE REMOVING SILT FENCE
5. REFER TO PLANS FOR ADDITIONAL SOIL EROSION CONTROL MEASURES

**TEMPORARY STONE TRACKING MAT**  
NO SCALE



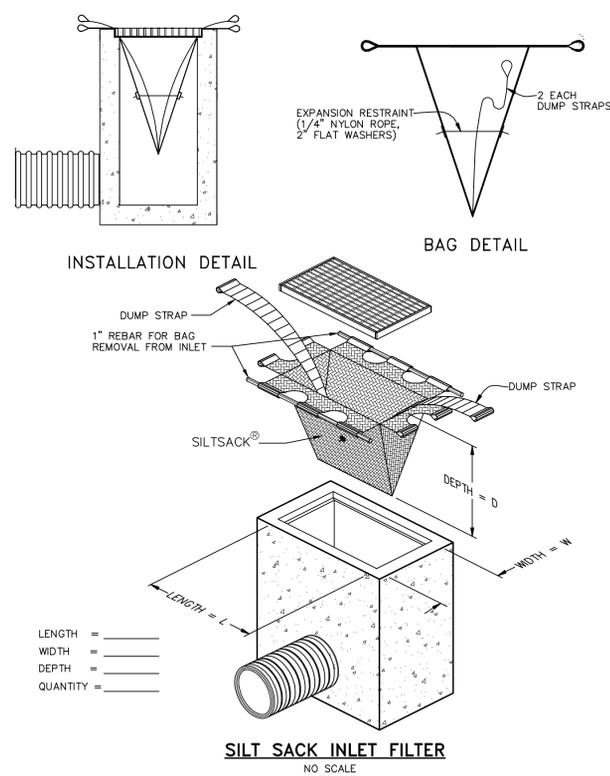
REV. NO.	REV. BY	CHK. BY	DATE

PUBLIC SERVICES DEPARTMENT  
CITY OF ANN ARBOR

**SILT FENCE**

DR. BY: DF/SMJ    CH. BY: CSS/DF    DRAWING NO.: SD-EC-3  
SCALE: NONE    DATE: 11-6-92

SHEET NO. OF



TASKS	COMPONENTS					SCHEDULE	Annual Cost
	Storm Sewer System	Ditches and Swales	Outflow Control Structure	Pond Outlet & Rip-Rap	Detention/Infiltration Basins		
Inspect for sediment, floatables, and debris	X	X	X		X	Semi-Annually	\$ 600.00
Removal of sediment, floatables, and debris	X	X	X		X	As Needed	\$ 1,400.00
Inspection for erosion		X	X	X	X	Quarterly	\$ 300.00
Re-establish permanent vegetation on eroded slopes		X	X	X	X	As needed	\$ 500.00
Replacement of stone		X	X	X		As Needed	\$ 700.00
Mowing		X				1-2 times per year	\$ 400.00
Inspect Stormwater system components during wet weather and compare to as-built plans	X	X	X	X	X	Semi-Annually	\$ 400.00
Make adjustments as determined by annual inspection	X	X	X	X	X	As needed	\$ 500.00
						Total Cost=	\$ 4,800.00

Note: Stormwater maintenance is the responsibility of the home owners association.  
NOTE: "As Needed" refers to when sediment has accumulated to a maximum of one foot depth, visually apparent debris exists, or if either of the stormwater management basins do not drain within 48-72 hours after a rain event  
NOTE: No chemicals are allowed in stormwater features or buffer zones with the following exception: Invasive species may be treated with chemicals by a certified applicator.  
NOTE: The infiltration basin shall be inspected following storms of 1" or more.

**PERMANENT STORM WATER MAINTENANCE TASKS, SCHEDULE, & BUDGET**  
DURING CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER SYSTEM, POST CONSTRUCTION THE HOMEOWNERS ASSOCIATION WILL BE RESPONSIBLE.

TASKS	COMPONENTS							SCHEDULE
	Storm Sewer System	Catch Basin Inlet Filters	Silt Fence	Ditches and Swales	Outflow Control Structure	Rip-Rap	Detention/Infiltration Basins	
Inspect for sediment, floatables, and debris	X	X	X	X	X	X	X	Weekly / Within 24 hrs after a Rain Event
Removal of sediment, floatables, and debris	X	X	X	X	X	X	X	As Needed
Inspection for erosion				X	X	X	X	Weekly / Within 24 hrs after a Rain Event
Re-establish permanent vegetation on eroded slopes				X	X	X	X	As needed
Replacement of stone					X			At turnover

NOTE: "As Needed" refers to when sediment has accumulated to a maximum of one foot depth and/or visually apparent debris exists  
**STORM WATER MAINTENANCE TASKS AND SCHEDULE DURING CONSTRUCTION**  
DURING CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER SYSTEM

SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
SESS NOTES & DETAILS

DATE: JUNE 7, 2021

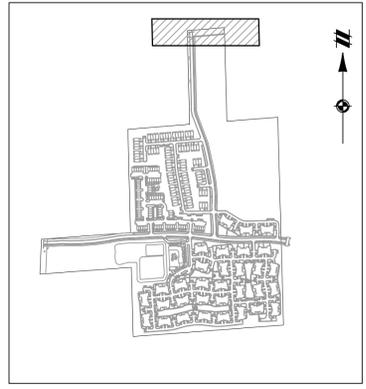
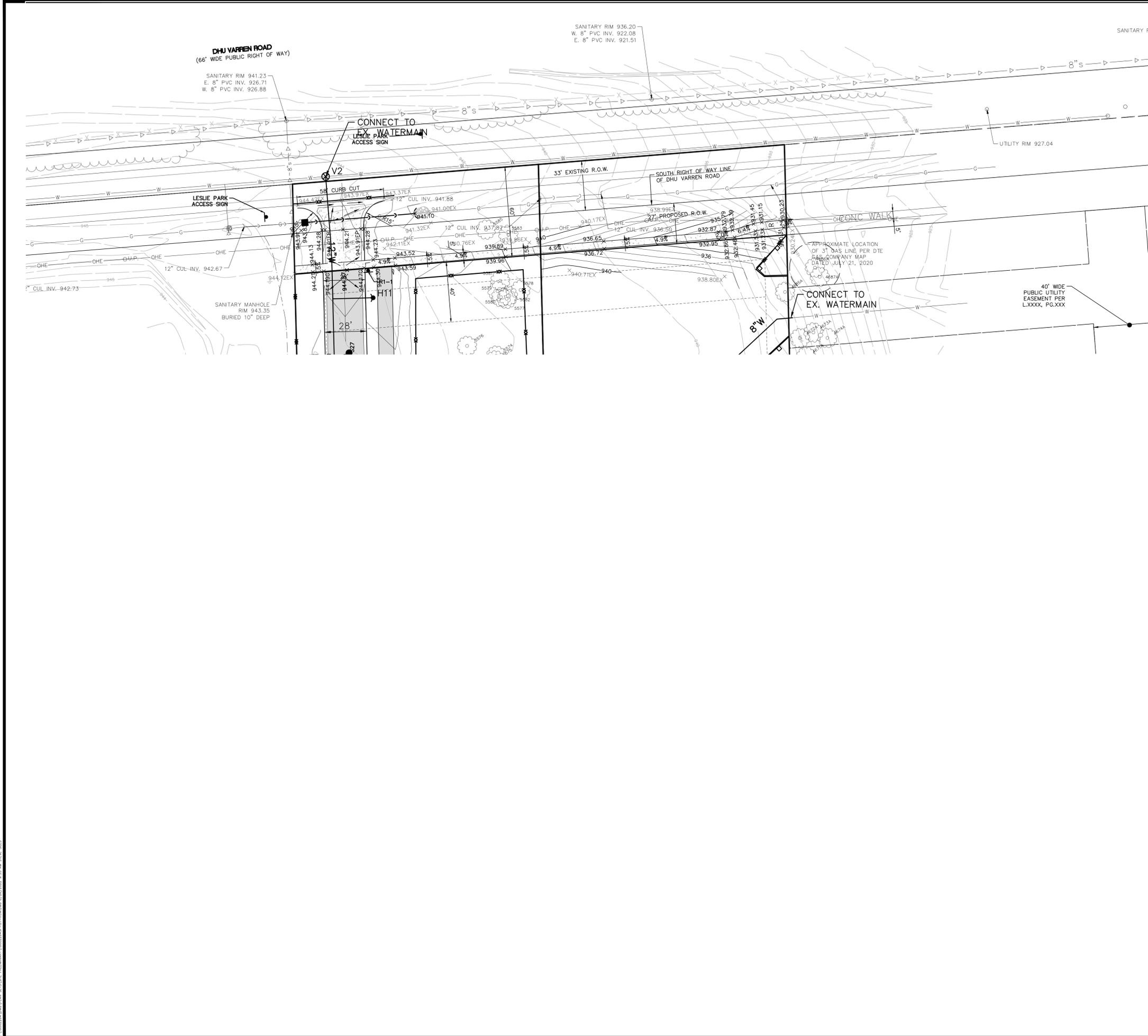
2021-10-11 PER CITY AND WCWR  
2022-01-19 PER CITY AND WCWR  
2022-03-31 PER CITY AND WCWR  
2022-06-06 PER CITY  
2022-06-16 PER CITY  
2022-06-17 REV. PHOTOMETRICS  
2022-07-12 PER CITY  
2022-08-22 PER CITY

REVISIONS

SCALE: 0 50 100  
1" = 100 FEET

DR. SK CH. SS

P.M. MB  
BOOK NA  
JOB 18002264  
SHEET NO. 58



KEY MAP  
1" = 750 FEET

LEGEND	
	BOUNDARY LINE
	EXIST. EASEMENT
	SECTION LINE
	BOUNDARY/PROPERTY LINE
	SECTION CORNER
	EXIST. TREE LINE
	EXIST. FENCE
	EXIST. 1' CONTOUR
	EXIST. 5' CONTOUR
	EXIST. WATER MAIN
	EXIST. SANITARY
	EXIST. STORM
	EXIST. CULVERT
	EXIST. CATCH BASIN/INLET
	EXIST. HYDRANT
	EXIST. VALVE
	EXIST. SANITARY SEWER
	EXIST. ASPHALT
	EXIST. GRAVEL
	EXIST. BUILDING
	EXIST. WETLAND
	EXIST. WETLAND BUFFER
	PROP. SETBACK
	PROP. BUILDING
	PROP. ASPHALT
	PROP. WALK
	PROP. EROSION CONTROL BLANKET
	PROP. LOT LINE
	PROP. DETENTION
	PROP. 1' CONTOUR
	PROP. 5' CONTOUR
	PROP. WATERMAIN
	PROP. SANITARY SEWER
	PROP. STORM SEWER
	PROP. WATER VALVE
	PROP. FIRE HYDRANT
	PROP. END SECTION
	PROP. CATCH BASIN/INLET
	PROP. MANHOLE
	PROP. SILT FENCE
	PROP. TREE FENCE
	PROP. INLET FILTER

**Know what's below.  
Call before you dig.**

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000

SECTION 16	TOWN 2 SOUTH, RANGE 6 EAST	ANN ARBOR TOWNSHIP	WASHTENAW COUNTY, MICHIGAN																
CLIENT ROBERTSON BROTHERS CO.	VILLAGE OF ANN ARBOR	SITE PLAN	DHU VARREN ROAD FRONTAGE																
DATE JUNE 7, 2021																			
<table border="0" style="width: 100%;"> <tr> <td style="width: 20%;">2021-10-11 PER CITY AND WCWR</td> <td style="width: 80%;"></td> </tr> <tr> <td>2022-01-19 PER CITY AND WCWR</td> <td></td> </tr> <tr> <td>2022-03-31 PER CITY AND WCWR</td> <td></td> </tr> <tr> <td>2022-06-06 PER CITY</td> <td></td> </tr> <tr> <td>2022-06-16 PER CITY</td> <td></td> </tr> <tr> <td>2022-06-17 REV. PHOTOMETRICS</td> <td></td> </tr> <tr> <td>2022-07-12 PER CITY</td> <td></td> </tr> <tr> <td>2022-08-22 PER CITY</td> <td></td> </tr> </table>				2021-10-11 PER CITY AND WCWR		2022-01-19 PER CITY AND WCWR		2022-03-31 PER CITY AND WCWR		2022-06-06 PER CITY		2022-06-16 PER CITY		2022-06-17 REV. PHOTOMETRICS		2022-07-12 PER CITY		2022-08-22 PER CITY	
2021-10-11 PER CITY AND WCWR																			
2022-01-19 PER CITY AND WCWR																			
2022-03-31 PER CITY AND WCWR																			
2022-06-06 PER CITY																			
2022-06-16 PER CITY																			
2022-06-17 REV. PHOTOMETRICS																			
2022-07-12 PER CITY																			
2022-08-22 PER CITY																			
REVISIONS																			
SCALE 0 15 30 1" = 30 FEET																			
DR. SK   CH. SS																			
P.M. MB																			
BOOK NA																			
JOB 18002264																			
SHEET NO. 59																			

K:\V0224\ADP\PLAN SET\SITE PLAN\DWG\2022-06-17-2022-08-22-18002264.dwg



Know what's below.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR...

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR...

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

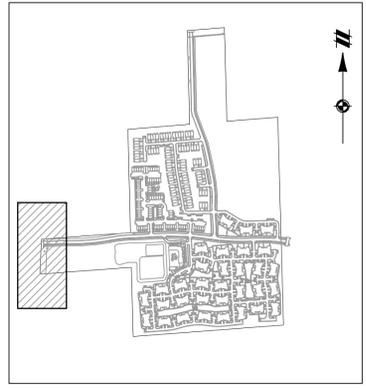
ATWELL logo and contact information: 866.850.4200, www.atwell-group.com, Two Towne Square, Suite 700, Southfield, MI 48076, 248.447.2000

SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
PONTIAC TRAIL FRONTAGE

DATE: JUNE 7, 2021  
2021-10-11 PER CITY AND WCMRC  
2022-01-19 PER CITY AND WCMRC  
2022-03-31 PER CITY AND WCMRC  
2022-06-06 PER CITY  
2022-06-16 REV. PHOTOMETRICS  
2022-07-12 PER CITY  
2022-08-22 PER CITY

REVISIONS  
SCALE 0 15 30  
1" = 30 FEET  
DR. SK CH. SS  
P.M. MB  
BOOK NA  
JOB 18002264  
SHEET NO. 60

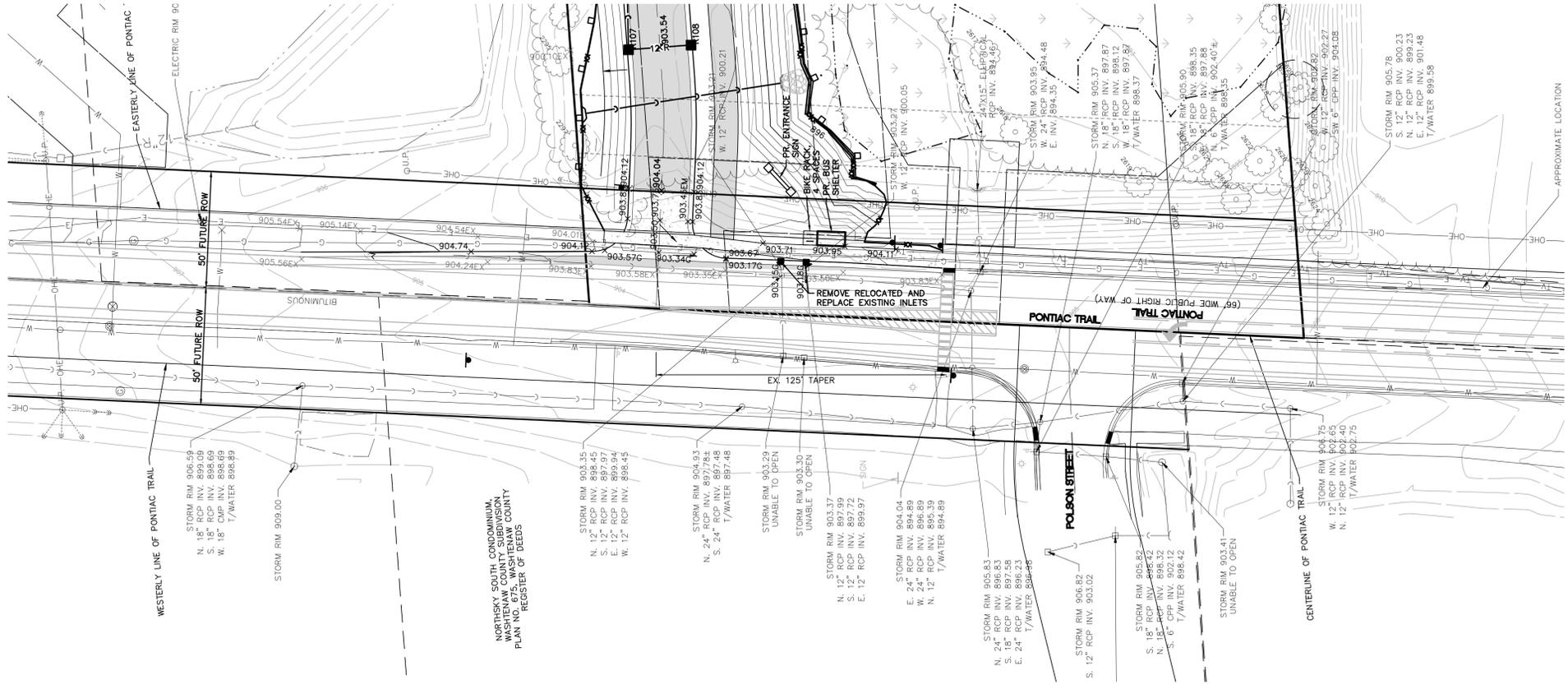
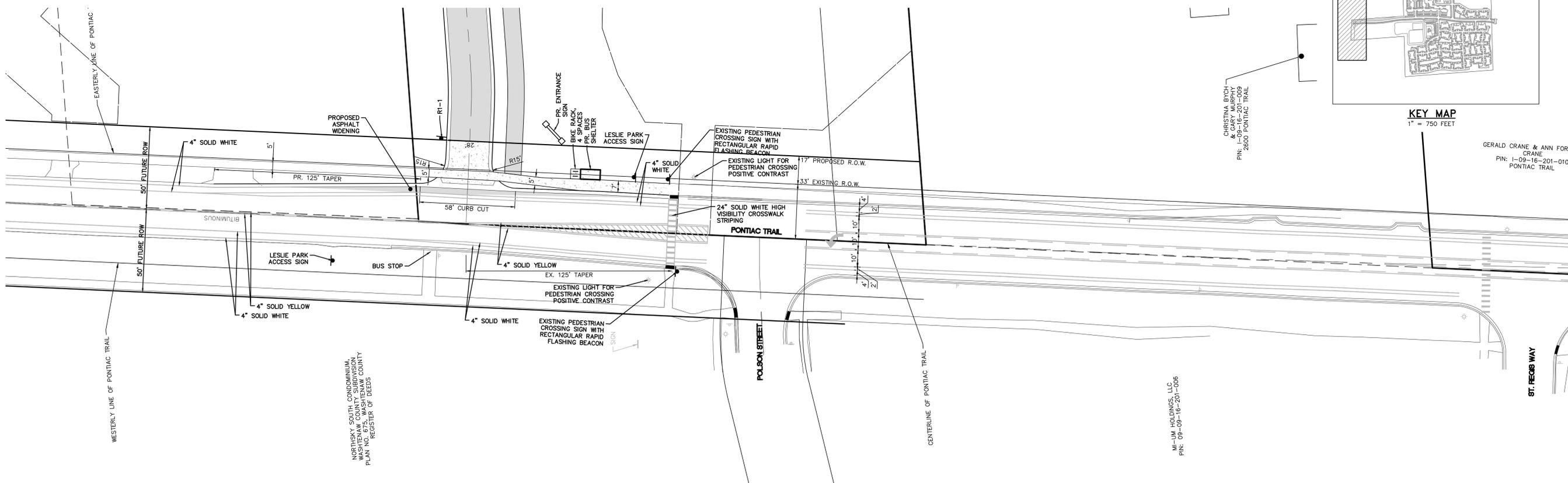


KEY MAP  
1" = 750 FEET

GERALD CRANE & ANN FORSI  
CRANE  
PIN: 1-09-16-201-010  
PONTIAC TRAIL

CHRISTINA BOCH  
ANN ARBOR  
PIN: 1-09-16-201-009  
2600 PONTIAC TRAIL

M-LUM HOLDINGS, LLC  
PIN: 08-09-16-201-006



LEGEND

Table with 3 columns: Symbol, Description, and Description. Lists various engineering symbols for boundary lines, easements, section lines, contours, water mains, storm lines, culverts, catch basins, hydrants, valves, sanitary sewers, asphalt, gravel, buildings, wetlands, setbacks, buildings, asphalt, walk, erosion control blankets, lot lines, detention, contours, watermain, sanitary sewer, storm sewer, water valve, fire hydrant, manhole, silt fence, tree fence, and inlet filter.

Vertical text on the left margin: K:\PROJECTS\2021\ANN ARBOR\18002264\18002264-01-001.dwg, 10/22/2021 9:28 AM, STEVE BULL

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000

SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
STORMWATER MANAGEMENT PLAN

DATE: JUNE 7, 2021

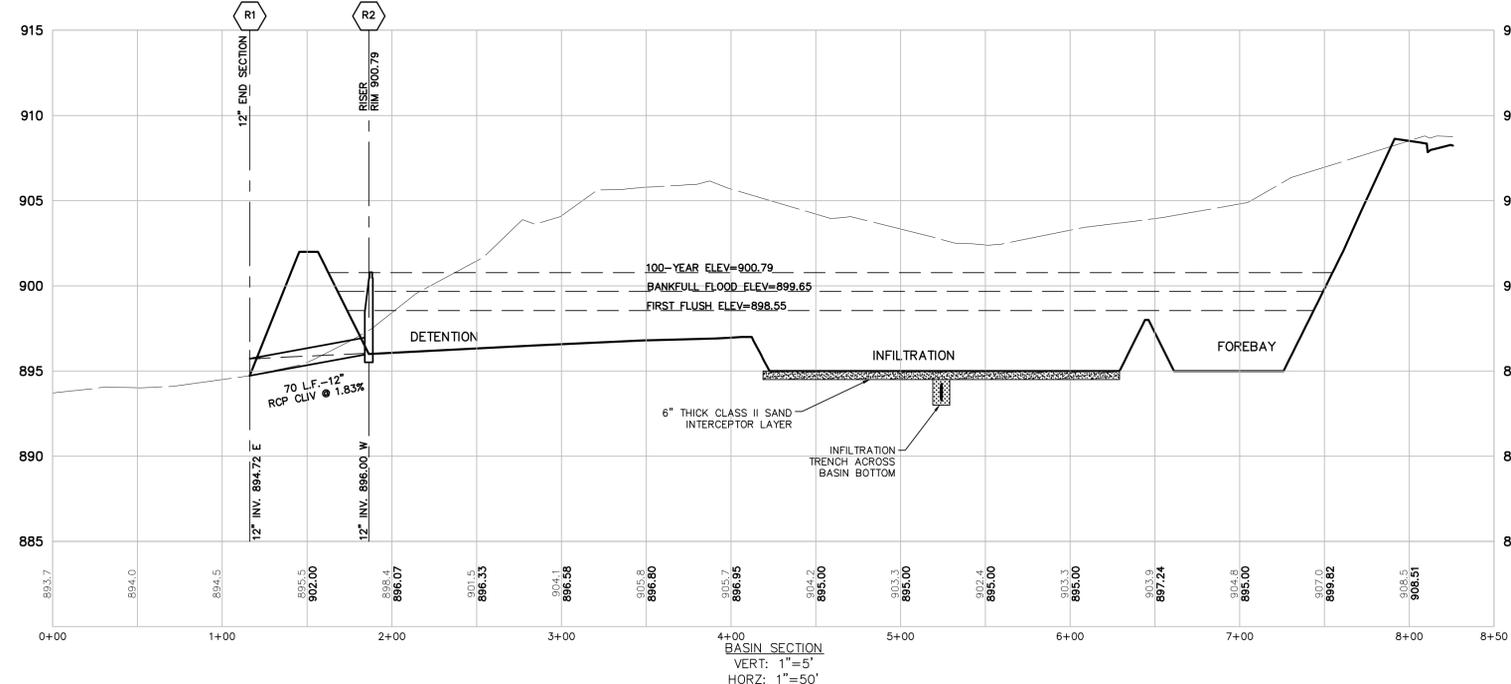
2021-10-11	PER CITY AND WCWR
2022-01-19	PER CITY AND WCWR
2022-03-31	PER CITY AND WCWR
2022-06-06	PER CITY
2022-06-16	PER CITY
2022-06-17	REV. PHOTOMETRICS
2022-07-12	PER CITY
2022-08-22	PER CITY

REVISIONS

SCALE	0	50	100
1" = 100 FEET			
DR.	SK	CH.	SS
P.M.	MB		
BOOK	NA		
JOB	18002264		
SHEET NO.	61		

**STORMWATER MANAGEMENT NOTES:**

- INFILTRATION IS REQUIRED FOR THE FIRST FLUSH STORM EVENT AND DETENTION IS REQUIRED FOR THE 100 YEAR STORM EVENT IN ACCORDANCE WITH CITY OF ANN ARBOR CODE OF ORDINANCES 5.655.2.(B).(1). INFILTRATION IS BEING PROVIDED IN ACCORDANCE WITH WCWR STANDARDS UTILIZING THE INFILTRATION BASIN AND INFILTRATION TRENCHES BEST MANAGEMENT PRACTICES.
- THE SITE SOILS AT THE DEPTH OF PROPOSED INFILTRATION CONSISTS PRE-DOMINANTLY OF NATURAL GRANULAR SANDY SOILS. INFILTRATION TESTING WAS PROVIDED IN ACCORDANCE WITH WCWR PROCEDURE ON APRIL 7, 2021.
- REFER TO THE STORMWATER CALCULATIONS ON SHEET 62 AND GEOTECHNICAL INVESTIGATION REPORT PROVIDED BY SME, JOB #079760.02, DATED 12/21/19 AND THE INFILTRATION EVALUATION REPORT PROVIDED BY SME JOB #84695.02, DATED MAY 6, 2021. SOIL BORING AND TEST PIT LOCATIONS SHOWN IN THESE PLANS PER THE ABOVE REFERENCED REPORTS.



**LEGEND**

(Solid line)	BOUNDARY LINE
(Dashed line)	EXIST. EASEMENT
(Dotted line)	SECTION LINE
(Long dashed line)	BOUNDARY/PROPERTY LINE
(Circle with cross)	SECTION CORNER
(Circle with dot)	EXIST. TREE LINE
(Circle with X)	EXIST. FENCE
(Circle with 801)	EXIST. 1' CONTOUR
(Circle with 800)	EXIST. 5' CONTOUR
(Circle with 12"R)	EXIST. ASPHALT
(Circle with 801)	EXIST. GRAVEL
(Circle with 800)	EXIST. BUILDING
(Circle with 12"R)	EXIST. WETLAND
(Circle with 801)	EXIST. WETLAND BUFFER
(Circle with 800)	PROP. SETBACK
(Circle with 12"R)	PROP. BUILDING
(Circle with 801)	PROP. ASPHALT
(Circle with 800)	PROP. WALK
(Circle with 12"R)	PROP. LOT LINE
(Circle with 801)	PROP. DETENTION
(Circle with 800)	PROP. 1' CONTOUR
(Circle with 12"R)	PROP. 5' CONTOUR
(Circle with 801)	PROP. STORM SEWER
(Circle with 800)	PROP. END SECTION
(Circle with 12"R)	PROP. CATCH BASIN/INLET
(Circle with 801)	PROP. MANHOLE
(Circle with 800)	PROP. SILT FENCE
(Circle with 12"R)	PROP. TREE FENCE
(Circle with 801)	PROP. INLET FILTER

CHU WARREN ROAD  
(66' WIDE PUBLIC RIGHT OF WAY)

OVERALL DRAINAGE AREA

VERT: 1"=5'  
HORIZ: 1"=50'



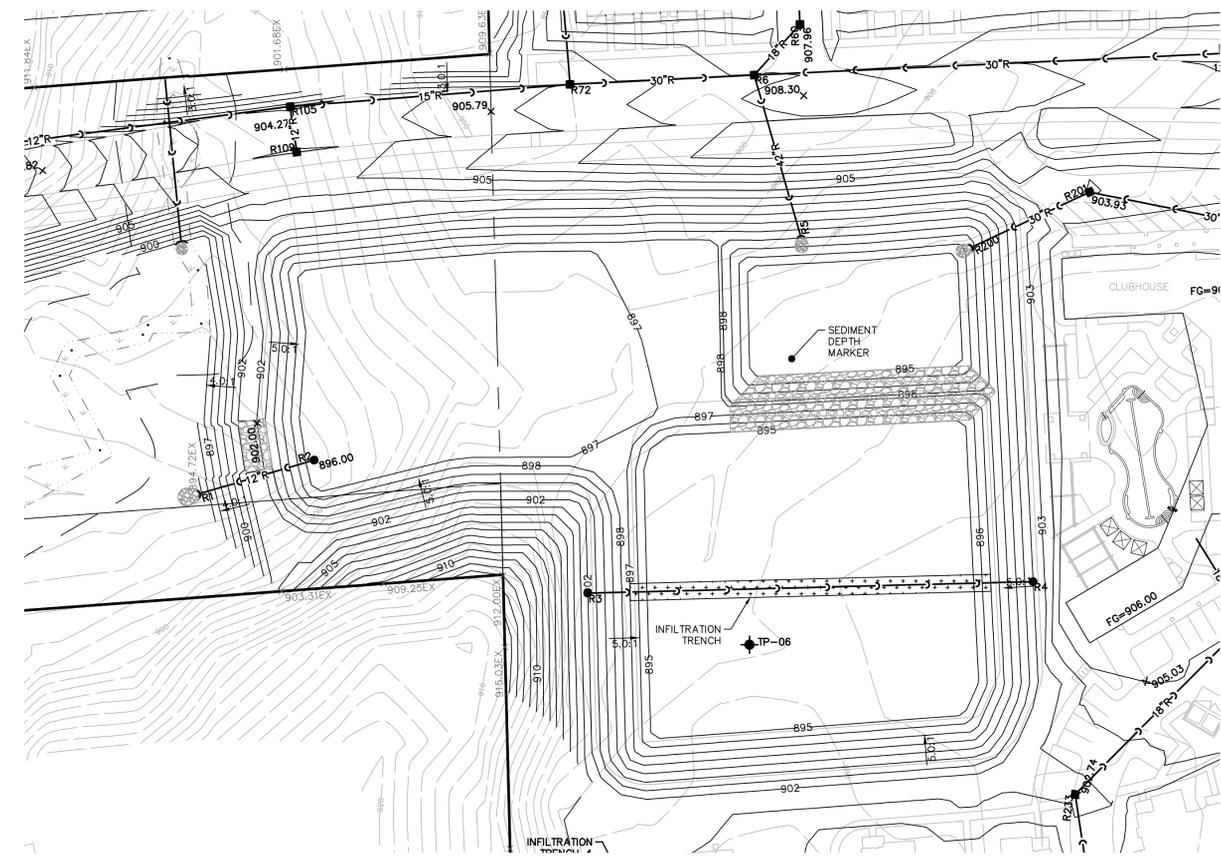
Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

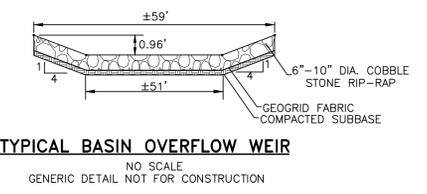
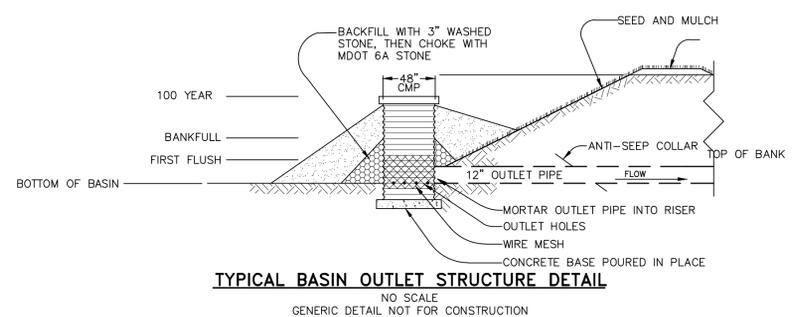
NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000



**DETENTION NOTES:**  
1. POND BEING OVERSIZED FOR ANTICIPATION OF FUTURE DEVELOPMENT LOCATED AT NORTH END OF SITE NEAR DHU WARREN ROAD.



SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
STORMWATER MANAGEMENT CALCS

DATE: JUNE 7, 2021  
2021-10-11 PER CITY AND WCWR  
2022-01-19 PER CITY AND WCWR  
2022-03-31 PER CITY AND WCWR  
2022-06-06 PER CITY  
2022-06-16 PER CITY  
2022-06-17 REV. PHOTOMETRICS  
2022-07-12 PER CITY  
2022-08-22 PER CITY

REVISIONS  
SCALE 0 25 50  
1" = 50 FEET  
DR. SK CH. SS  
P.M. MB  
BOOK NA  
JOB 18002264  
SHEET NO. 62

K:\PROJECTS\2021\ANN ARBOR\ANN ARBOR VILLAGE\STORMWATER\2021-10-11\2021-10-11\_SHEET 16.DWG

**INFILTRATION TRENCH #1 CALCULATIONS:**

W1 Determining Post-Development Cover Types, Areas, Curve Numbers and runoff coefficients

Total Contributing Drainage Area = 0.70 Acres

Rational Method Variables	Cover Type	Soil Type	Area (sf)	Area (ac)	Runoff Coef.	(c)/Area												
Paved Parking Lots, roofs, driveways	B & C	15,500	0.36	0.96	0.56	14,725												
							Water Surfaces	B & C	0	0.00	1.00	0						
													Developed Open Space, Good Condition	B	0	0.00	0.30	0
Total - Sum (c)/Area =			19,932															
Area Total (sf) =			30,376															
Weighted C-Sum(c)/Area/Sum(ac) or Sum(sf) =			0.66															

NRCS Variables	Pervious Cover Type	Soil Type	Area (sf)	Area (ac)	Curve Number	(CN)/Area						
Developed open space	B	0	0.00	61	0	0						
							Developed open space	C	14,876	0.34	74	1,100,809
Total - Sum (CN)/Area =			0.34			1,100,809						
Area Total - Sum(ac) of Sum(sf) =			14,876									
Weighted CN-Sum(CN)/Area/Sum(ac) or Sum(sf) =			74									

NRCS Variables	Impervious Cover Type	Soil Type	Area (sf)	Area (ac)	Curve Number	(CN)/Area						
Paved Parking Lots, roofs, driveways	C	15,500	0.36	98	1,519,000	0						
							Impervious, Ponds	C	0	0.00	98	0
Total - Sum (CN)/Area =			0.36			1,519,000						
Area Total - Sum(ac) of Sum(sf) =			15,500									
Weighted CN-Sum(CN)/Area/Sum(ac) or Sum(sf) =			98									

W6 Pervious Cover Post-development 100-year Storm Runoff Calculations (V100-per-post)

A	100 year storm event	P =	5.11	in
B	Pervious Cover CN	CN =	74	
C	S = (1000/CN) - 10	S =	3.51	in
D	Q = (P-0.2S)/2(P+0.8S)	Q =	2.45	in
E	Pervious Cover Area	Area =	14,876	sf
F	V <sub>100-per-post</sub> = Q(1/12)/Area	V <sub>100-per-post</sub> =	3,040	cf

W7 Impervious Cover Post-development 100-year Storm Runoff Calculations (V100-imp-post)

A	100 year storm event	P =	5.11	in
B	Pervious Cover CN	CN =	98	
C	S = (1000/CN) - 10	S =	0.20	in
D	Q = (P-0.2S)/2(P+0.8S)	Q =	4.87	in
E	Pervious Cover Area	Area =	15,500	sf
F	V <sub>100-imp-post</sub> = Q(1/12)/Area	V <sub>100-imp-post</sub> =	6,294	cf

W8 Determine Time of Concentration (Tc-hrs)

User specified: assume 20 minutes

Total Time of Concentration (hrs) = 0.33

W9 Runoff Summary & Onsite Infiltration Requirement

V <sub>100-per-post</sub>	=	3,040	cf	Total 100-year Volume (V <sub>100</sub> )	
V <sub>100-imp-post</sub>	=	6,294	cf		9,334

W11 Determine Applicable BMPs and Associated Volume Credits

Proposed BMP	Area (ft <sup>2</sup> )	Storage Depth (ft)	Storage Volume (ft <sup>3</sup> )	Ave. Design Infil. Rate (in/hr)**	Infil. During Storm (ft <sup>3</sup> )	Potential Volume Reduction (ft <sup>3</sup> )	Actual Reduction (cf)**
Infiltration Trench 1	300	1.50	135	0	10	1,635	1,635

\* Per Geotechnical Investigation by SME. 10 in/hr maximum per Rules  
 \*\* Minimum of the calculated potential reduction and the 100 year storm volume over the tributary area. See W11A.

Total Volume Reduction Credit by Proposed Structural BMPs (V<sub>inf</sub>) = 1,635 cf

W11A Infiltration Loading Ratios and Storage Volume Drawdown Times

Proposed BMP	100-yr Contributing Runoff (cf)*	Tributary Area (sf)	Overall Loading Ratio	Imperv. Area (sf)	Impervious Loading Ratio	Drawdown Time (hrs)
#1: Infiltration Basin (TP-08)	9,334	30,376	101.3	15,500	51.7	0.54

**INFILTRATION TRENCH #5 CALCULATIONS:**

W1 Determining Post-Development Cover Types, Areas, Curve Numbers and runoff coefficients

Total Contributing Drainage Area = 1.60 Acres

Rational Method Variables	Cover Type	Soil Type	Area (sf)	Area (ac)	Runoff Coef.	(c)/Area												
Paved Parking Lots, roofs, driveways	B & C	33,533	0.77	0.96	31,856	0												
							Water Surfaces	B & C	0	0.00	1.00	0						
													Developed Open Space, Good Condition	B	0	0.00	0.30	0
Total - Sum (c)/Area =			44,580															
Area Total (sf) =			69,886															
Weighted C-Sum(c)/Area/Sum(ac) or Sum(sf) =			0.64															

NRCS Variables	Pervious Cover Type	Soil Type	Area (sf)	Area (ac)	Curve Number	(CN)/Area						
Developed open space	B	0	0.00	61	0	0						
							Developed open space	C	36,353	0.83	74	2,690,088
Total - Sum (CN)/Area =			0.83			2,690,088						
Area Total - Sum(ac) of Sum(sf) =			36,353									
Weighted CN-Sum(CN)/Area/Sum(ac) or Sum(sf) =			74									

NRCS Variables	Impervious Cover Type	Soil Type	Area (sf)	Area (ac)	Curve Number	(CN)/Area						
Paved Parking Lots, roofs, driveways	C	33,533	0.77	98	3,286,234	0						
							Impervious, Ponds	C	0	0.00	98	0
Total - Sum (CN)/Area =			0.77			3,286,234						
Area Total - Sum(ac) of Sum(sf) =			33,533									
Weighted CN-Sum(CN)/Area/Sum(ac) or Sum(sf) =			98									

W6 Pervious Cover Post-development 100-year Storm Runoff Calculations (V100-per-post)

A	100 year storm event	P =	5.11	in
B	Pervious Cover CN	CN =	74	
C	S = (1000/CN) - 10	S =	3.51	in
D	Q = (P-0.2S)/2(P+0.8S)	Q =	2.45	in
E	Pervious Cover Area	Area =	36,353	sf
F	V <sub>100-per-post</sub> = Q(1/12)/Area	V <sub>100-per-post</sub> =	7,429	cf

W7 Impervious Cover Post-development 100-year Storm Runoff Calculations (V100-imp-post)

A	100 year storm event	P =	5.11	in
B	Pervious Cover CN	CN =	98	
C	S = (1000/CN) - 10	S =	0.20	in
D	Q = (P-0.2S)/2(P+0.8S)	Q =	4.87	in
E	Pervious Cover Area	Area =	33,533	sf
F	V <sub>100-imp-post</sub> = Q(1/12)/Area	V <sub>100-imp-post</sub> =	13,617	cf

W8 Determine Time of Concentration (Tc-hrs)

User specified: assume 20 minutes

Total Time of Concentration (hrs) = 0.33

W9 Runoff Summary & Onsite Infiltration Requirement

V <sub>100-per-post</sub>	=	7,429	cf	Total 100-year Volume (V <sub>100</sub> )	
V <sub>100-imp-post</sub>	=	13,617	cf		21,046

W11 Determine Applicable BMPs and Associated Volume Credits

Proposed BMP	Area (ft <sup>2</sup> )	Storage Depth (ft)	Storage Volume (ft <sup>3</sup> )	Ave. Design Infil. Rate (in/hr)**	Infil. During Storm (ft <sup>3</sup> )	Potential Volume Reduction (ft <sup>3</sup> )	Actual Reduction (cf)**
Infiltration Trench 5	1,850	1.50	833	0	10	9250	10,083

\* Per Geotechnical Investigation by SME. 10 in/hr maximum per Rules  
 \*\* Minimum of the calculated potential reduction and the 100 year storm volume over the tributary area. See W11A.

Total Volume Reduction Credit by Proposed Structural BMPs (V<sub>inf</sub>) = 10,083 cf

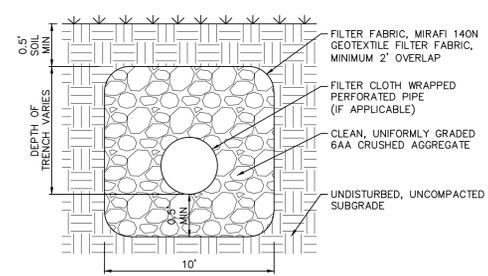
W11A Infiltration Loading Ratios and Storage Volume Drawdown Times

Proposed BMP	100-yr Contributing Runoff (cf)*	Tributary Area (sf)	Overall Loading Ratio	Imperv. Area (sf)	Impervious Loading Ratio	Drawdown Time (hrs)
#1: Infiltration Basin (TP-13)	21,046	69,886	37.8	33,533	18.1	0.54

**INFILTRATION TRENCH #2 CALCULATIONS:**

**INFILTRATION TRENCH #3 CALCULATIONS:**

**INFILTRATION TRENCH #4 CALCULATIONS:**



INFILTRATION TRENCH DETAIL  
NO SCALE



Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OR OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
 866.850.4200 www.atwell-group.com  
 TWO TOWNE SQUARE, SUITE 700  
 SOUTHFIELD, MI 48076  
 248.447.2000

SECTION 16  
 TOWN 2 SOUTH, RANGE 6 EAST  
 ANN ARBOR TOWNSHIP  
 WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
 VILLAGE OF ANN ARBOR  
 SITE PLAN  
 INFILTRATION TRENCH CALCULATIONS

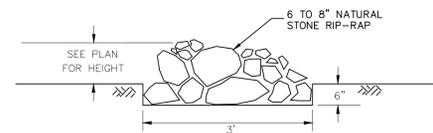
DATE: JUNE 7, 2021

- 2021-10-11 PER CITY AND WCWR
- 2022-01-19 PER CITY AND WCWR
- 2022-03-31 PER CITY AND WCWR
- 2022-06-06 PER CITY
- 2022-06-16 PER CITY
- 2022-07-12 REV. PHOTOMETRICS
- 2022-07-12 PER CITY
- 2022-08-22 PER CITY

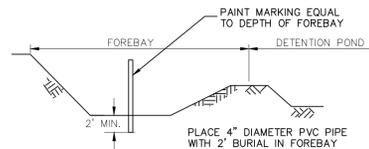
REVISIONS

SCALE	NO SCALE
DR. SK	CH. SS

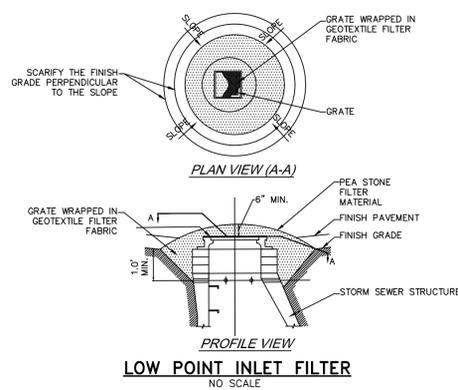
P.M. MB  
 BOOK NA  
 JOB 18002264  
 SHEET NO. 63



**SEDIMENT FOREBAY RIP-RAP BARRIER DETAIL**  
NO SCALE

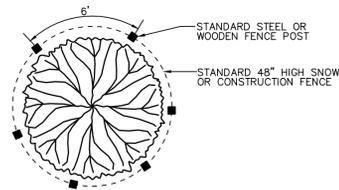


**SEDIMENT FOREBAY MARKER DETAIL**  
NO SCALE



**LOW POINT INLET FILTER**  
NO SCALE

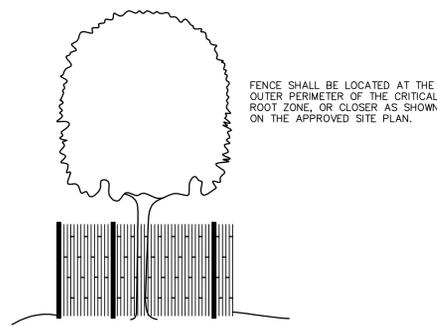
PLAN



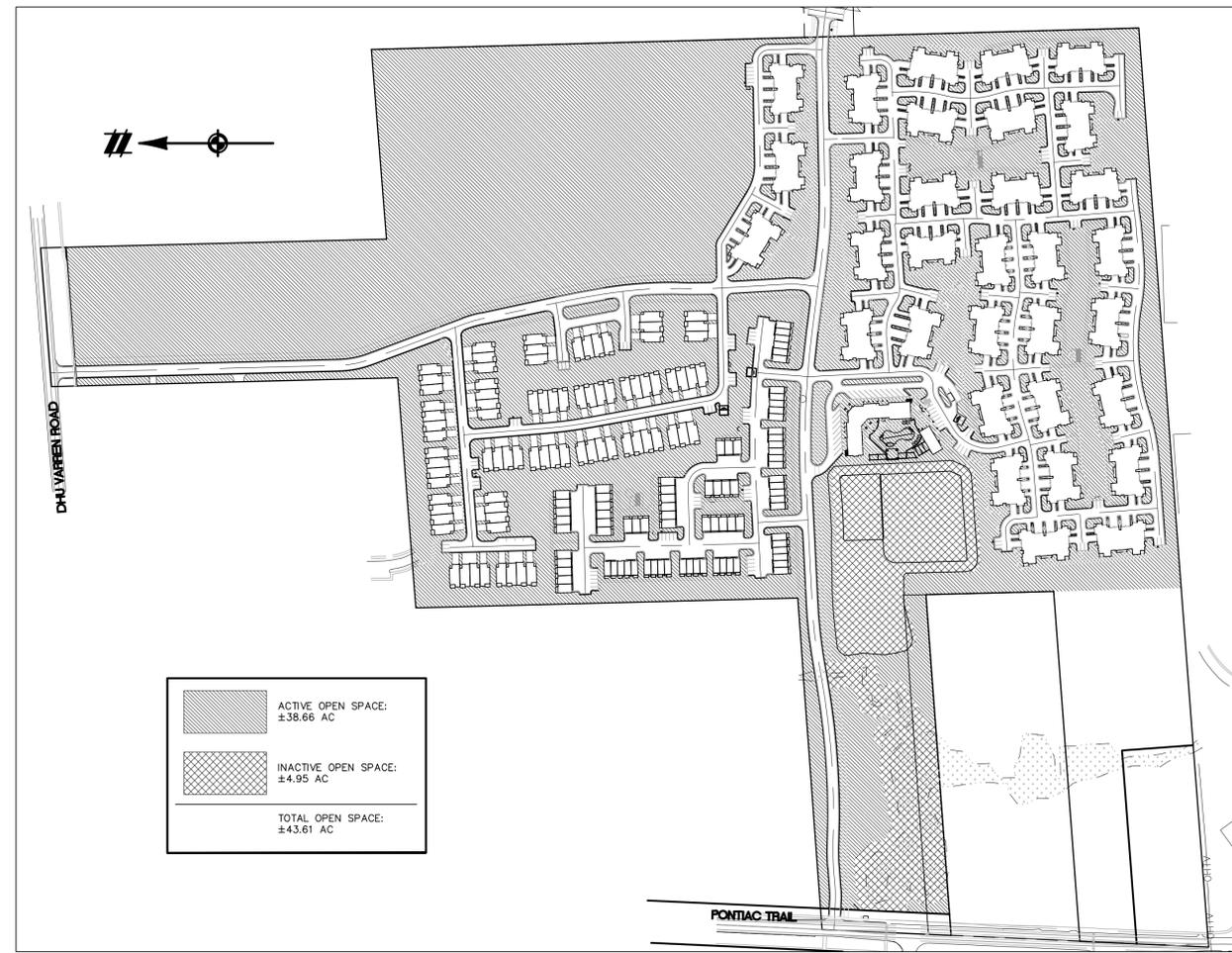
TREE PROTECTION NOTES:

1. ALL TREES TO BE REMOVED WILL BE IDENTIFIED BY RED FLAGGING.
2. TREE PROTECTION FENCING IS TO BE ERRECTED PRIOR TO ANY EARTHWORK OR CONSTRUCTION AND IS TO REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
3. ALL DEBRIS, FILL, EQUIPMENT OR MATERIAL IS TO BE KEPT CLEAR OF AREA WITHIN PROTECTIVE FENCE. NO CLEANING OF EQUIPMENT OR MATERIAL OR STORAGE OR DISPOSAL OF ANY MATERIAL WITHIN THE GRIP LINE OF ANY TREES TO BE SAVED.

ELEVATION

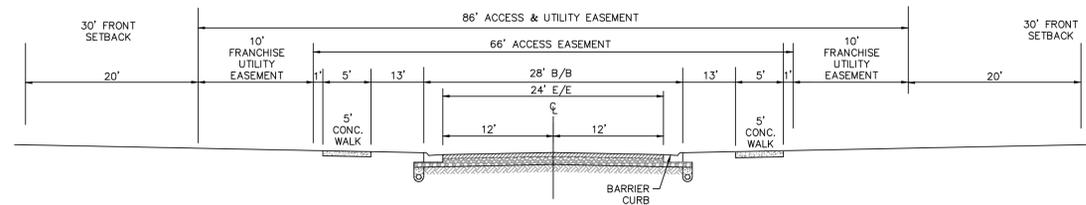


**TREE PROTECTION FENCE DETAIL**  
NO SCALE

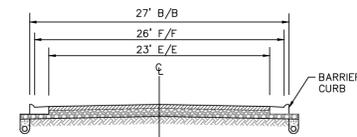


**OPEN SPACE DELINEATION PLAN**

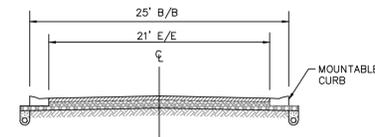
SCALE: 1" = 200 FEET



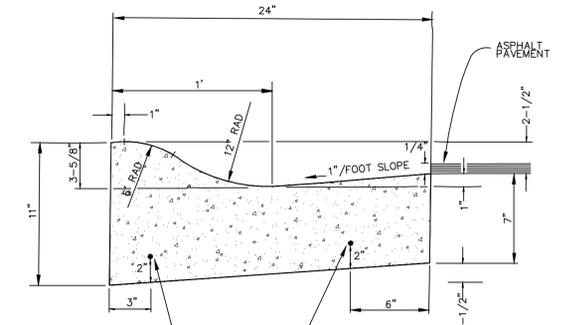
**COLLECTOR ROAD SECTION**  
NOT TO SCALE



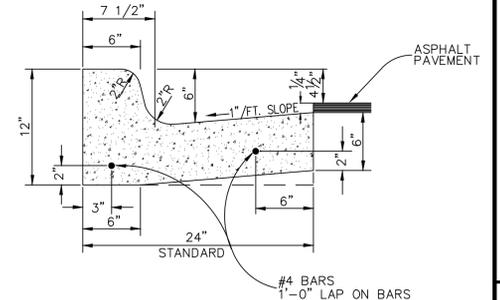
**3-STORY TOWNHOME ROAD SECTION**  
NOT TO SCALE



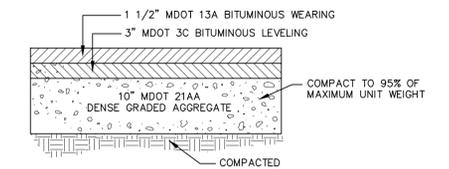
**2-STORY TOWNHOME AND APARTMENT ROAD SECTION**  
NOT TO SCALE



**MOUNTABLE CURB AND GUTTER DETAIL**  
NOT TO SCALE

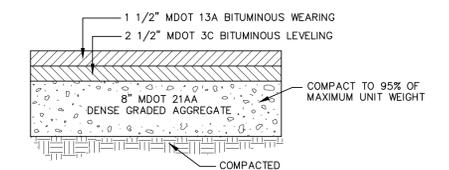


**BARRIER CURB AND GUTTER DETAIL**  
NOT TO SCALE



NOTE: NOT APPLICABLE WITHIN PUBLIC RIGHT-OF-WAY. FOR ONSITE USE ONLY. PAVEMENT WITHIN THE RIGHT OF WAY SHALL CONFORM TO CITY OF ANN ARBOR STANDARDS.

**COLLECTOR ROAD PAVING SECTION**  
NO SCALE



NOTE: NOT APPLICABLE WITHIN PUBLIC RIGHT-OF-WAY. FOR ONSITE USE ONLY. PAVEMENT WITHIN THE RIGHT OF WAY SHALL CONFORM TO CITY OF ANN ARBOR STANDARDS.

**TOWNHOME, APARTMENT AND PARKING AREA PAVING SECTION**  
NO SCALE

**811**  
Know what's below.  
Call before you dig.  
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
www.atwell-group.com  
866.850.4200  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000

SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
STANDARD DETAILS 1

DATE: JUNE 7, 2021  
2021-10-11 PER CITY AND WCWR  
2022-01-19 PER CITY AND WCWR  
2022-03-31 PER CITY AND WCWR  
2022-06-08 PER CITY  
2022-06-18 PER CITY  
2022-06-17 REV. PHOTOMETRICS  
2022-07-12 PER CITY  
2022-08-22 PER CITY

REVISIONS

SCALE: 0  
NO SCALE

DR. SK CH. SS  
P.M. MB  
BOOK NA  
JOB 18002264  
SHEET NO. 64



Know what's below.

Call before you dig. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000

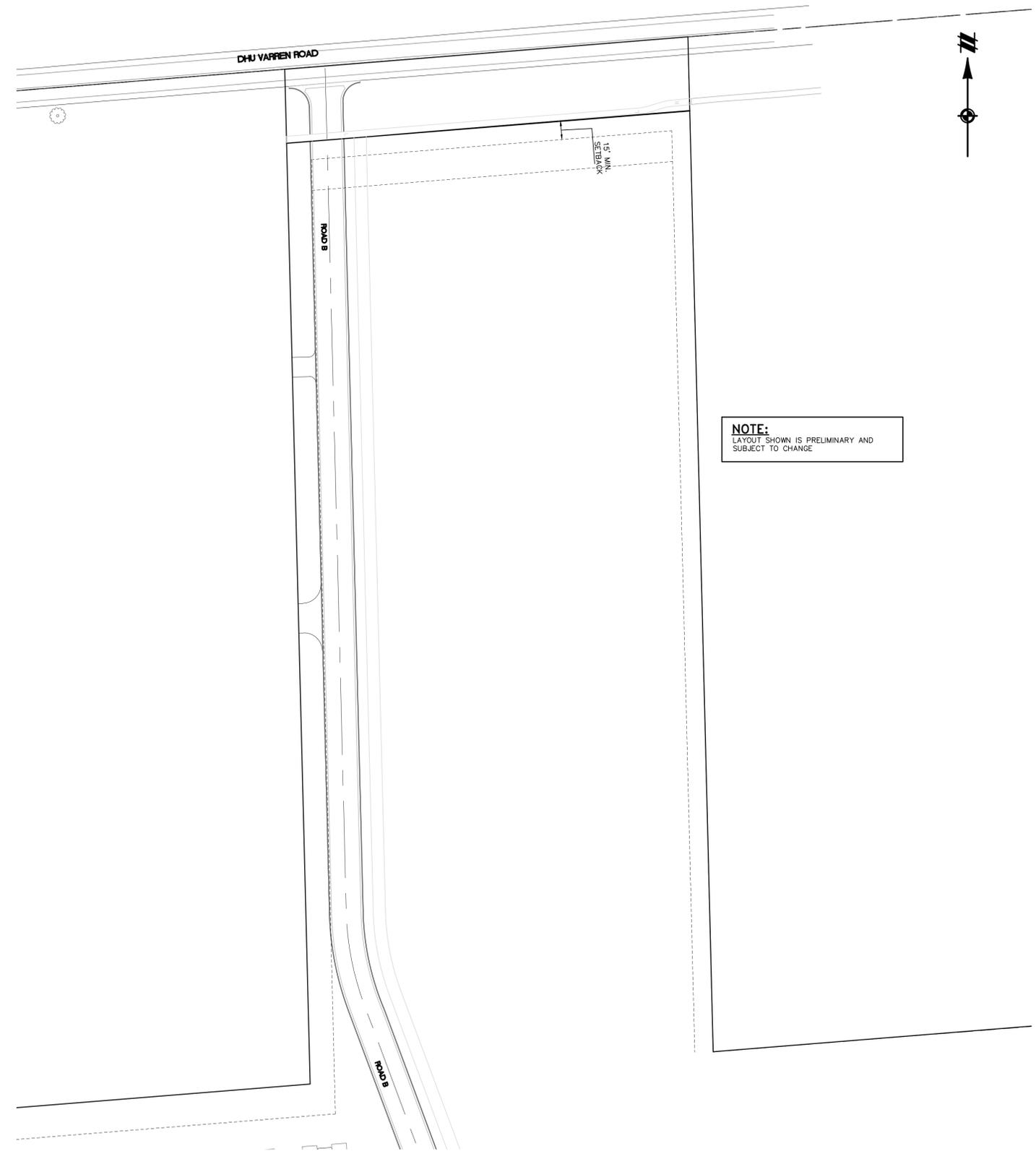


SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
STANDARD DETAILS 2

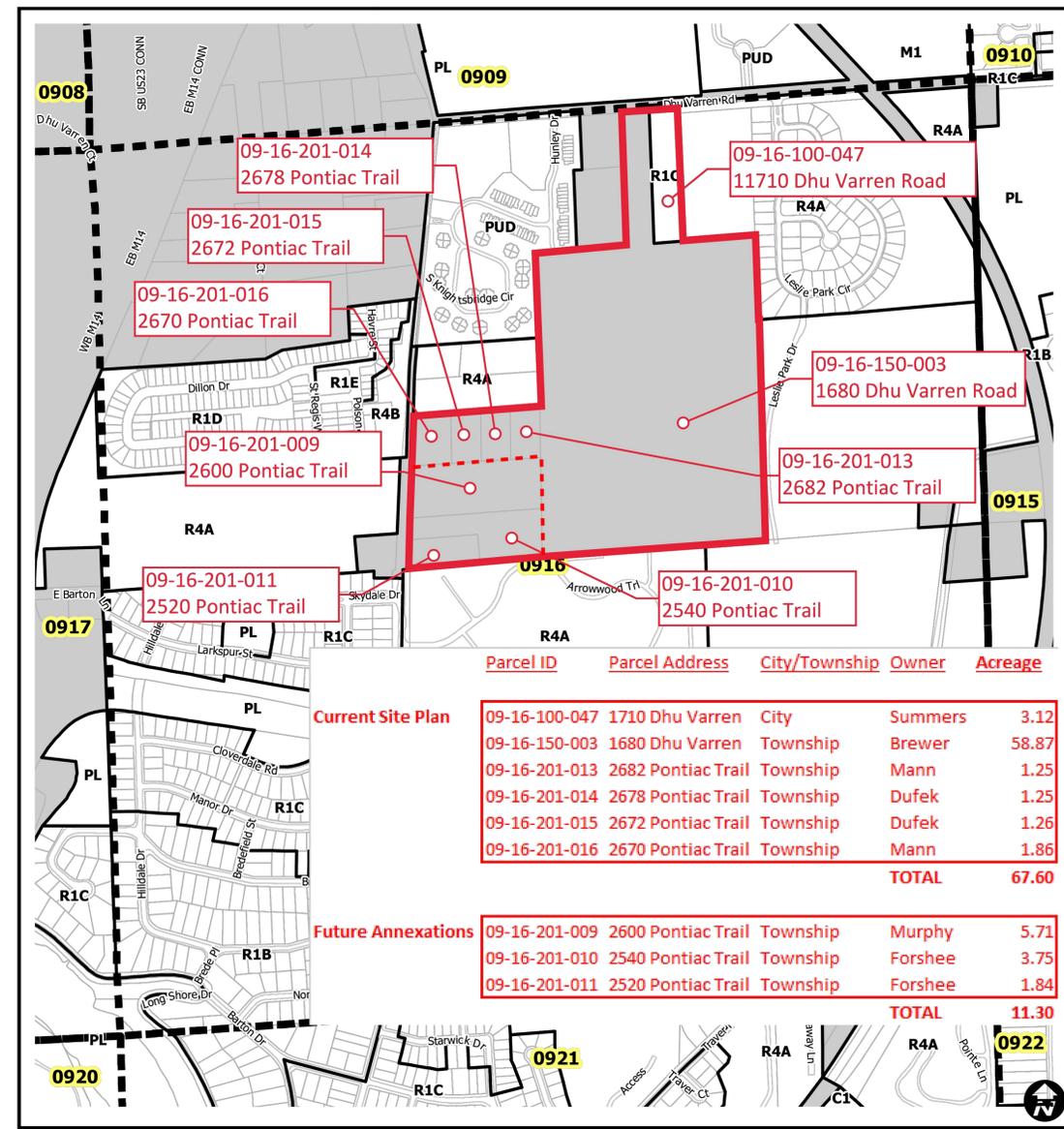
DATE: JUNE 7, 2021  
2021-10-11 PER CITY AND WCWR  
2022-01-19 PER CITY AND WCWR  
2022-03-31 PER CITY AND WCWR  
2022-06-06 PER CITY  
2022-06-16 PER CITY  
2022-06-17 REV. PHOTOMETRICS  
2022-07-12 PER CITY  
2022-08-22 PER CITY

REVISIONS  
SCALE: 0 AS NOTED  
DR. SK CH. SS  
P.M. MB  
BOOK NA  
JOB 18002264  
SHEET NO. 65



FUTURE DEVELOPMENT AREA CONCEPTUAL LAYOUT  
SCALE: 1" = 50 FEET

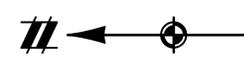
NOTE:  
LAYOUT SHOWN IS PRELIMINARY AND  
SUBJECT TO CHANGE



Parcel ID	Parcel Address	City/Township	Owner	Acreage
<b>Current Site Plan</b>				
09-16-100-047	1710 Dhu Varren	City	Summers	3.12
09-16-150-003	1680 Dhu Varren	Township	Brewer	58.87
09-16-201-013	2682 Pontiac Trail	Township	Mann	1.25
09-16-201-014	2678 Pontiac Trail	Township	Dufek	1.25
09-16-201-015	2672 Pontiac Trail	Township	Dufek	1.26
09-16-201-016	2670 Pontiac Trail	Township	Mann	1.86
<b>TOTAL</b>				<b>67.60</b>
<b>Future Annexations</b>				
09-16-201-009	2600 Pontiac Trail	Township	Murphy	5.71
09-16-201-010	2540 Pontiac Trail	Township	Forshee	3.75
09-16-201-011	2520 Pontiac Trail	Township	Forshee	1.84
<b>TOTAL</b>				<b>11.30</b>

FUTURE LAND HOLDINGS MAP  
NO SCALE

K:\V02024\05\05\PLAN SET\021 PRELIMINARY\020240505.dwg - 08:27:06 AM 6/7/2022 8:58 AM SITE PLAN



Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OR PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
866.850.4200 www.atwell-group.com  
TWO TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
248.447.2000



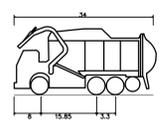
SECTION 16  
TOWN 2 SOUTH, RANGE 6 EAST  
ANN ARBOR TOWNSHIP  
WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
VILLAGE OF ANN ARBOR  
SITE PLAN  
SOLID WASTE PLAN -  
TOWNHOMES

DATE: JUNE 7, 2021

2021-10-11	PER CITY AND WCWR
2022-01-19	PER CITY AND WCWR
2022-03-31	PER CITY AND WCWR
2022-06-06	PER CITY
2022-06-16	PER CITY
2022-06-17	REV. PHOTOMETRICS
2022-07-12	PER CITY
2022-08-22	PER CITY

REVISIONS	
SCALE	0 25 50
1" = 50 FEET	
DR.	SK CH. SS
P.M.	MB
BOOK	NA
JOB	18002264
SHEET NO.	66



Front Load Garbage 34.000ft  
Overall Length 8.000ft  
Overall Width 15.85ft  
Overall Body Height 3.3ft  
Min Body Ground Clearance 1.132ft  
Track Width 1.000ft  
Lock-to-lock Time 6.000ft  
Max Steering Angle (Virtual) 40.000ft

### TRASH TRUCK TEMPLATE DETAIL

### SOLID WASTE NOTES (TOWNHOMES):

- TRASH HANDLING AND PICKUP TO OCCUR IN CITY STANDARD 64 GALLON CARTS.
- RECYCLING HANDLING AND PICKUP TO OCCUR IN CITY STANDARD 64 GALLON CARTS.
- COMPOSTING HANDLING AND PICKUP TO OCCUR IN CITY STANDARD 64 GALLON CARTS, STORED IN A LOCALIZED ENCLOSURE, TO BE WHEELED OUT ON SERVICE DAY. SIGNIFICANT COMPOSTING VOLUME GENERATION BY RESIDENTS IS NOT ANTICIPATED AS OUTSIDE MAINTENANCE WILL BE CONTRACTED. THE DEVELOPMENT IS RESPONSIBLE FOR WHEELING COMPOST CARTS FROM THE ENCLOSURE ON COLLECTION DATE. ALL CARTS SHALL BE PLACED A MINIMUM OF THREE FEET APART.
- REFER TO THIS PLAN FOR GENERAL PLACEMENTS DURING PICKUP WITHIN THE TOWNHOUSE AREAS. BINS ARE SHOWN WITH A STANDARD 3' SEPARATION. DURING SERVICE DAYS, BINS ALSO BE PLACED WITHIN THE PAVEMENT ALONG PRIVATE ROADS THAT ARE AT 25' BC/BC OR GREATER. THE CARTS PLACED IN THE PAVEMENT FOR PICKUP ARE TO BE ADJACENT TO THE BACK OF CURB AND PLACED IN THE AREA IMMEDIATELY IN FRONT OF THE CART LOCATION SHOWN ON THIS PLAN.
- SOLID WASTE AND RECYCLING BINS ARE TO BE STORED IN GARAGES WHEN NOT IN SERVICE.



K:\PROJECTS\2021\ANN ARBOR\18002264\18002264-06-STEP16-06-2021.dwg 16:14 AM 06/07/2021



Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

**ATWELL**  
 866.850.4200 www.atwell-group.com  
 TWO TOWNE SQUARE, SUITE 700  
 SOUTHFIELD, MI 48076  
 248.447.2000

SECTION 16  
 TOWN 2 SOUTH, RANGE 6 EAST  
 ANN ARBOR TOWNSHIP  
 WASHTENAW COUNTY, MICHIGAN

CLIENT: ROBERTSON BROTHERS CO.  
 VILLAGE OF ANN ARBOR  
 SITE PLAN  
 SOLID WASTE PLAN - APARTMENTS

DATE: JUNE 7, 2021

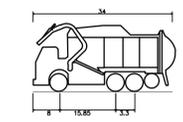
2021-10-11	PER CITY AND WCWR
2022-01-19	PER CITY AND WCWR
2022-03-31	PER CITY AND WCWR
2022-06-06	PER CITY
2022-06-16	PER CITY
2022-06-17	REV. PHOTOMETRICS
2022-07-12	PER CITY
2022-08-22	PER CITY

REVISIONS

SCALE	0	50	100
1" = 100 FEET			
DR.	SK	CH.	SS
P.M.	MB		
BOOK	NA		
JOB	18002264		
SHEET NO.	67		



- SOLID WASTE NOTES (APARTMENTS):**
- TRASH HANDLING AND PICKUP TO OCCUR IN WASTE COMPACTOR, AS SHOWN ON THIS PLAN.
  - RECYCLING HANDLING AND PICKUP TO OCCUR IN THE DUAL RECYCLING DUMPSTER, AS SHOWN ON THIS PLAN.
  - COMPOSTING IS NOT REQUIRED AND NOT BEING PROVIDED. SIGNIFICANT COMPOSTING VOLUME GENERATION BY RESIDENTS IS NOT ANTICIPATED AS OUTSIDE MAINTENANCE WILL BE CONTRACTED.



Front Load Garbage	34.000ft
Overall Length	8.500ft
Overall Width	1.132ft
Overall Body Height	1.132ft
Min Body Ground Clearance	7.000ft
Track Width	6.000ft
Lock-to-lock time	40.00°
Max Steering Angle (Virtual)	

TRASH TRUCK TEMPLATE DETAIL

K:\PROJECTS\ANNARBOR\ANNARBOR\18002264\18002264-08-STEP-6-2022-8-17-AM-SETUP-DWG

